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HARDY PLANT
MATERIAL
FOR
SPRING OF 1943

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ERIC C. BROWN
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U. S. Department of Agriculture



*Snyder
Bros.,
Inc.*
Linn County nurseries

CENTER
POINT,
IOWA



THE BEAUTIFUL CONCOLOR FIR standing on our nursery grounds is again featured on the cover. It is a remnant of the first planting on this site in 1908 and has averaged about a foot of growth per year. Without special care or pruning, this shapely tree developed from a crooked scrubby little tree which was not saleable.

THIS PRICE LIST also gives brief description and cultural notes of the main stock available for the spring of 1943.

FOOD PRODUCING PLANTS and shelterbelt plants are the most important products of the nursery in these times of food and fuel shortages, so are given first place in the list. Food and fuel will ultimately win the war.

EQUIPMENT. A clay block building 100 x 100 feet with a large double-walled, insulated apartment provides room for storing and packing deciduous trees and shrubs with a minimum loss of vitality from exposure. Modern tools and machines for efficiently digging and handling stock are kept ready.

LOCATION. The nursery is on paved Highway No. 150, which connects with the Lincoln Highway seventeen miles south at Cedar Rapids, and with No. 20, twenty-five miles north, at Independence. The office and storage house are just south of C. R. I. & P. station grounds and across the tracks from the Highway. The fruit and nut orchards are one and one-half miles south of the nursery on No. 150.

VISITORS can motor through the nursery when it is dry, on well maintained drives.

BUSINESS HOURS. During the planting season, 7 to 12 A. M. and 1 to 6 P. M. week days. Please do not expect digging after regular hours or on Sundays.



APPLES

The orchard can be made a most attractive part of the home grounds from a purely ornamental standpoint, if it is carefully located so as to be easily accessible for the necessary spraying and for frequent mowing with a field mower.

Purely ornamental trees are not more beautiful than fruit trees at blooming time, especially if an assortment of varieties is planted having flowers ranging from pure white to deep red, and good varieties with red flowers are now available.

When the fruit is ripening it again supplies much color and at that time a well kept orchard is the most attractive part of the home planting. In the fall, again, the foliage of some of the fruit trees is as colorful as that of any purely ornamental tree.

Apple trees should be planted 30 to 40 feet apart. They respond to good cultivation, fertilization, and care as freely as does corn or any other crop.

If planted in sod as most home orchards are, an area 4 or 5 feet in diameter around the young trees should be dug up and either kept cultivated or well mulched with strawy manure.

When planted in cultivated ground, small fruit bushes, berries or garden truck may be cultivated with the trees while small.

Our apple trees are grown from piece root grafts planted deeply so they can produce roots above the graft, thus ultimately becoming own rooted trees. These are superior in hardiness to the budded trees usually sold. For the very hardest orchard trees plant Virginia or Hibernal grown as described above and top work their branches to the better but more tender kinds. Top worked trees on these stocks begin bearing younger, are more productive, and dependable than those grown otherwise.

EARLY VARIETIES

Duchess	Melba
Early McIntosh	Red Astrachan
Liveland (Lowland Raspberry)	Yellow Transparent

FALL VARIETIES

Benoni	Snow (Famuese)	Ramsdell	Wealthy
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WINTER VARIETIES

Adel	Hawkeye	Greening	Secor
Allen's Choice	Hibernal		Sharon
Ames 423	Isherwood		Sheriff
Cortland	Joan		Sugar Loaf
Delicious, Red	Jonathan		Stayman (Winesap)
Edgewood	Macoun		Tolman Sweet
English G. Russet	McIntosh		Turley
Geniton	Northwestern (Greening)	Yellow Delicious	
Grimes (Golden)	Northern Spy		

Liveland is the best eating apple of the list in July and Benoni is in August. Ramsdell is a large red sweet apple in early fall; Tolman Sweet a yellowish late winter variety and Sugar Loaf an intensely sweet, good, late fall variety.

CRAB APPLES

Whitney

Wynema

Virginia

See also Red Flesh, Dolga, and Soulard among the ornamental crabs.

Wynema is a large red wild crab which keeps a year. The tree is dwarf growing, extremely productive, and very ornamental.

PRICES of all apple and crab apple:

	Each	Per 10
5-6 ft., 11/16 in.	\$0.75	\$7.00
4-5 ft., 9/16 in.	.60	5.50
3-4 ft., 7/16 in.	.50	4.50

CHERRIES

Early Richmond

Montmorency

Yellow Glass

Plant on well-drained soil only. Elsewhere they will be unsatisfactory.

Early Richmond and Montmorency are the most dependable and the most planted. Yellow Glass is a true sweet cherry and is more tender than the others.

These are standard grades. The caliper governs.

	Each	Per 10
5-6 ft., 11/16 in. and up.	\$1.00	\$9.00
4-5 ft., 9/16 in.-11/16 in.	.75	6.50
3-4 ft., 7/16 in.- 9/16 in.	.60	5.00

PEARS

Bartlett
Kieffer
Lincoln

Patten
Seckel

PRICES of all standard Pears:

	Each	Per 10
5-6 ft., 11/16 in.	\$1.00	\$9.00
4-5 ft., 9/16 in.	.75	6.50

PEACHES

Peaches in central Iowa should be planted where they will have as much protection as possible, for no variety is fully hardy and regular crops can not be expected.

PRICES—Budded varieties.

	Size	Each	Per 10
Champion, Marquette, and Polly.	5-6 ft.	\$0.75	\$6.50

Polly is a large, white, Iowa freestone, described as one of the very hardiest good peaches.

APRICOTS

Manchu

Sansin

PRICES:

	Each	Per 10
4-5 ft.	\$1.00	\$9.00
3-4 ft.	.75	7.00

Both are Prof. Hansen's new hardy varieties and certainly are best for severe climates. These are well worth planting as ornamental as well as fruit bearing trees. They have good foliage and form, and very beautiful large rose-pink flowers real early in the spring before there are any leaves to conceal them.

PLUMS

Fiebing
German Prune
Sapa
Superior

Surprise
Toka
Underwood

Plums thrive in rich moist bottom lands, or even quite wet soils.

Surprise is a pure American variety of good quality for all purposes, and valuable especially as a pollinizer for the hybrid varieties.

Underwood, and Superior are splendid large new hybrid varieties from the Minnesota Station. All have very small seeds and high quality, but will not pollinate one another. To secure pollination, plant trees of a native variety like Surprise, or another type of hybrid such as Toka, among them as pollinizers in the proportion of 1 or more to 6 or 8 of the trees to be pollinated.

Toka itself is one of the very best plums and has a pronounced fragrance and apricot flavor.

Sapa and Oka are hybrids of the Western Sand Cherry produced by Prof. Hansen and are dwarf trees which bear at any size. The fruit is of medium size, has purple flesh, a very small pit, and is splendid for canning.

German Prune, and Moors Arctic are European or Blue Plums which should be planted in protected places.

PRICES of Plum trees:

	Each	Per 10
5-6 ft., 11/16 in.	\$1.00	\$9.00
4-5 ft., 9/16 in.	.75	6.50

CURRANTS

Currants are offered for local sale only, and cannot be sent out of Iowa.

Red Lake

Red Lake is the extra large variety developed by the Minnesota State Fruit Breeding Farm and is rapidly coming to be considered the best red currant. 2-year bushes of above variety. 25c each, \$2.00 per 10, \$18.00 per 100.

Currants are adapted to plant on the small home ground requiring little attention other than a dusting to control the currant worm in early spring.

GOOSEBERRIES

For local sale only. Cannot be sent out of the state.

Downing

Champion

PRICES—2-year plants. 35c each \$3.00 per 10

GRAPES

Grapes are one of the best fruits for the Defense Garden of the city lot since they fit into the landscape well and usually require less spraying than most fruits.

- Beta, small, early, black.
- Moors Early, large, early, black.
- Concord, black.
- Niagara, large, white.
- Diamond (Moors), large, white.
- Worden, large, black.

PRICES—

	Each	Per 10	Per 100
Concord.	\$0.20	\$1.50	\$10.00
Others listed above.25	2.00	15.00

Most of the following are new varieties procured by the N. Y. Experiment Station. They have exceptionally fine fruit and we believe are well worth the light protection they require to endure some of our severe winters.

- Brockton, 40c: Green, one of the very best for home use.
- Caco, 30c: Red, productive, fine appearing and splendid quality.
- Fredonia, 30c: Black, about two weeks earlier than Worden.
- Portland, 30c: Earliest white, large bunches and berries.
- Sheridan, 30c: Black late, ripening better than Concord in bad seasons.

RASPBERRIES

The heavy grade of plants we offer if put out early and given good care may produce enough fruit the first season to pay for themselves.

The black varieties grow from tips and do not spread much; red varieties sucker freely.

Raspberries are usually planted in hedge rows about 2 feet apart in the row. Cumberland is the most planted black variety.

Indian Summer is the most satisfactory red everbearing variety.

Latham, Newberg, and Taylor are large red varieties of fine quality.

PRICES—

	Per 10	Per 100	Per 1000
Latham, Newberg, and Taylor.	\$0.60	\$5.00	\$40.00
Cumberland transplants.80	7.50	
Indian Summer.70	6.00	

BLACKBERRIES AND DEWBERRIES

PRICES—

	Per 10	Per 100
Snyder, Alfred and Eldorado Blackberry, root cutting plants.....	\$0.60	\$5.00
Lucretia Dewberry, transplants or root cutting plants.60	

STRAWBERRIES

Dunlap is the old standby. It is very satisfactory under a wide range of conditions.

Blakemore seems superior to Dunlap under some conditions. The plants are deep rooted and endure drought well.

The Gem is a fall bearing variety of good quality and size if growing conditions are good. Usually fall bearing strawberries are better farther north.

Plant new beds each year in rows 4 feet apart and 18 inches in the row.

PRICES—

	Per 100	Per 1000
Dunlap and Blakemore.	\$1.00	\$9.00
The Gem, fall bearing.	2.00	

ASPARAGUS

Asparagus is one of the first spring vegetables ready to use and one of the most wholesome. Plant it along a fence or border where a heavy application of barnyard fertilizer can be easily applied after the cutting season. The growing plants are attractive and fit well into the home planting and Defense Garden.

PRICES—

	Per 10	Per 100
Paradise, 1-year plants.	\$0.40	3.00
A very superior variety, fine quality, rust resistant, and enormously productive.		

RHUBARB

Rhubarb, like Asparagus, should be planted in rich soil where it need not be disturbed, and will produce a great lot of wholesome food with a minimum amount of work. Heavy clumps of it may be forced in the furnace room in winter if they are dug in the fall and allowed to freeze hard before taking in. The better kinds retain their foliage through the season so are attractive plants for the Defense Garden.

	Each	Per 10
Linnaeus, heavy roots.	\$0.15	\$1.00

The common kind of rhubarb.

	.45	4.00
McDonald, strong divisions.		

A fine new kind from Canada with a high sugar content and fine flavor. Produces little seed so can be used over a longer season than the common rhubarb.

	1.00
Chipman's Red, heavy divisions.	

This new Canadian variety is the very best rhubarb obtainable. It is dark red, as vigorous as McDonald, does not go to seed, is mild, fine flavored, and very productive.

FOREST TREE SEEDLINGS

Evergreens unquestionably make the best windbreak but deciduous trees also have their place and especially in the farm woodlot. Nearly every farm has some small or irregular tract which is troublesome to farm, or a place which needs planting to prevent the start of erosion ditches, and such a place should be planted to trees which will supply fuel and repair parts in times of emergency, for such times are certain to come sooner or later.

	Size	Per 100	Per 1000
AMERICAN ELM	2- 3 ft.	\$ 3.50	\$30.00
BLACK LOCUST	18-24 in.	3.00	25.00
BLACK WALNUT	12-18 in.	5.00	45.00
CHINESE ELM	2- 3 ft.	3.50	27.50
	3- 4 ft.	4.00	38.00
GREEN ASH	18-24 in.	3.00	25.00
HARDY CATALPA	18-24 in.	3.00	25.00
HONEY LOCUST	18-24 in.	3.00	27.50
RUSSIAN MULBERRY	18-24 in.	3.00	25.00
SOFT MAPLE	18-24 in.	3.00	25.00
WILLOW, Niobe-1 year cuttings	2- 3 ft.	10.00	

DECIDUOUS TREES AND SHRUBS

Trees and shrubs are included under one heading because many plants may be either, according to the training given them.

The figures in feet given after the names indicate the size attained at maturity under average conditions, and will vary considerably according to the environment.

Specific requirements such as acid or limestone soil, moist or dry soil, shade or full exposure, winter protection, etc., are noted if important for successfully growing the plant.

Large heavy specimens of several kinds are available and will be quoted on application.

	Size	Each	Per 10
ALMONDS—Flowering. See <i>Prunus glandulosa</i> .			
AMELANCHIER, Canadensis. Tree Form, Juneberry. 4- 5 ft.		\$1.00	\$
An upright form which may be grown as a tall bush or trained into a tree 30 feet high.			
ARONIA arbutifolia brilliantissima. 6-8 ft.	3- 4 ft.	.90	
Especially desirable for its very brilliant red fruit	4- 5 ft.	1.00	
retained until winter and its deep red foliage in			
the fall. Rather open growing.			
—melanocarpa, Black Chokeberry. 4-6 ft.	2- 3 ft.	.60	5.00
A compact shrub with clusters of attractive white	3- 4 ft.	.70	6.00
flowers in spring and shiny black fruit in fall.			
Splendid foliage becoming deep red in fall.			

		Size	Each	Per 10
ASH—American.	50-60 ft.....	5- 6 ft.	.75	6.50
A quite rapid growing, splendid shade tree. Thrives almost anywhere. Not easily broken by storms or likely to be injured by pests.		6- 8 ft.	1.00	9.00
		8-10 ft.	1.50	13.50
AZALEAS are "tops" among the flowering shrubs and are not as difficult to grow as most people believe. A location protected from dry winds such as the east side of a building, partial shade, plenty of peat, and not too much lime in the soil will satisfy the hardy kinds listed. Most of the great number of varieties grown in the South or East have no value here.				
— mollis, Chinese Azalea.	3-4 ft.	12-15 in.	1.50	B & B
Clusters of large flowers before the leaves, pale yellow to red, mostly orange. Mildly acid soil. All will bloom the first season planted. Plenty of humus and some protection from the driest winds and hottest sun are its requirements.		15-18 in.	2.00	B & B
		18-24 in.	3.00	B & B
		2-2½ ft.	3.50	B & B
— mucronulatum, Mongolian Azalea.	6 ft.	18-24 in.	3.00	B & B
This azalea endured our severe winters and hottest summers without protection or special care, and will tolerate some lime. Purplish-rosy pink flowers open about April 20th.		2-2½ ft.	3.50	B & B
		2½-3 ft.	4.00	B & B
— poukhanensis, Korean Azalea.	3-4 ft.	18-24 in.	3.00	B & B
Single, rosy mauve, fragrant flowers. Acid soil. Earlier than mollis. A compact attractive dwarf shrub.		2-2½ ft.	3.50	B & B
— schlippenbachii, Royal Azalea.	5-6 ft.	2-2½ ft.	3.50	B & B
Large pale rose-pink, needs some shade. The most vigorous grower of the group. Ordinary soil with some peat seems to suit it. Tolerates considerable lime. Beautiful fall coloring.		2½-3 ft.	4.00	B & B
		3-3½ ft.	4.50	B & B
BARBERRY —For the regular type of Japanese Barberry and Truehedge or Columnberry see Hedge Plants. Page 19.				
— mentorensis, Evergreen Barberry. (U. S. Plant Patent 99).		18-24 in.	.65	5.00
Practically evergreen. In late winter the leaves change to coppery-bronze and are retained until the new green leaves appear. Splendid for foundation planting.		2-2½ ft.	.85	6.50
— Red Leaved. 3-6 ft.		18-24 in.	.60	5.50
A form with purplish-red foliage all summer if in the sun. In shade it is green.		2-2½ ft.	.80	7.50
BIRCH—Cut Leaved Weeping Birch. 30-60 ft.....	5- 6 ft.		2.25	
Subject to borers, otherwise one of the very best ornamental trees, with white bark and drooping branches when older.	6- 8 ft.		2.75	

	Size	Each	Per 10
BUCKTHORN, Rhamnus frangula, Glossy Buck-thorn. 8-12 ft.	3- 4 ft.	.50	4.00
Glossy green leaves. Flowers continuously throughout the summer; bears green, red and black berries. Splendid for screens in difficult places.	4- 5 ft.	.75	6.50
	5- 6 ft.	1.00	9.00
BUTTERFLY BUSH—Buddleia.			
All make splendid cut flowers from mid-summer until frost. All require winter protection.			
—Charming.	No. 1	.60	
Long sprays of lavender-pink in late summer and fall.			
—Concord.	No. 1	.60	
Strong spikes of dark red with lighter edge.			
—Eleanor.	No. 1	.60	
Eleanor-blue with orange eye.			
—Orchid Beauty.	No. 1	.60	
Long heads of orchid-pink with a bright orange eye.			
—Royal Red. Patented.	No. 1	.75	
A dark deep red. Darkest of all.			
CARAGANA arborescens, Siberian Pea-Tree. 10-15 ft.	2- 3 ft.	.40	3.00
Green bark. Soft pea-green foliage very early.	3- 4 ft.	.50	4.50
Bright yellow flowers in late May. Thrives in	4- 5 ft.	.60	5.50
driest soil in sun, also endures shade.			
—Frutex, Russian Pea-Tree. 6-8 ft.	18-24 in.	.40	3.50
A lower growing shrub with larger leaflets and flowers than the above.	2- 3 ft.	.50	4.50
CORNUS alba siberica. 8-10 ft.	2- 3 ft.	.50	4.50
Erect bright red branches, small white flowers in May, and porcelain-blue berries. Colorful in fall and winter.	3- 4 ft.	.60	5.50
—alternifolia, Pagoda Dogwood. 15-20 ft.	3- 4 ft.	1.00	
Horizontal branches in tiers easily trained into a pagoda form of tree. Blue fruit eagerly eaten by birds. Very picturesque.	4- 5 ft.	1.25	11.00
—elegantissima, Variegated Dogwood. 6-8 ft.	2- 3 ft.	.90	8.00
Leaves edged with creamy-white. Bright red bark in winter.			
COTONEASTER acutifolia, Quinceberry. 5-8 ft.	2- 3 ft.	.50	4.00
Small pinkish flowers, black berries. Smooth glossy, dark green leaves with brilliant crimson fall coloring. A splendid, perfectly hardy, thornless hedge plant which shears well.	3- 4 ft.	.60	5.00
	4- 5 ft.	.75	6.50

		Size	Each Per 10
CRAB, Malus. Small trees or shrubs flowering in May. They easily take the place of Japanese Cherries which are not dependable here. The crabs are hardy, afford a good range of colors and the blossoms last longer than flowering plum or cherry blossoms.			
—Adstringens. 15-20 ft.	3- 4 ft.	1.00	
Recommended by the Morton Arboretum as one of the best of all flowering crabs. A vigorous growing fair sized tree. The large deep pink flowers are produced most freely and the bright red fruit with a yellow check are very showy in fall.	4- 5 ft.	1.25	
	5- 6 ft.	1.50	
—Bechtel Double Flowering. 10-15 ft.	3- 4 ft.	1.25	
A double form of the Wild Prairie Crab. Large double, pink, fragrant flowers. "A tree full of roses," people usually exclaim. No fruit.	4- 5 ft.	1.50	
	5- 6 ft.	2.00	
—Carmine, Malus atrosanguinea. 10-15 ft.	4- 5 ft.	1.25	
Single brilliant carmine flowers over the entire tree. Rapid growing and wide-spreading.	5- 6 ft.	1.50	
—Dolga, Hansen's Red Crab. 15-18 ft.	3- 4 ft.	.75	
A Siberian Crab with large white flowers and brilliant-red fruit, especially fine for jelly.	4- 5 ft.	.90	
	5- 6 ft.	1.00	
—Eley Flowering Crab, M. eleyi. 25-30 ft.	3- 4 ft.	1.00	
Purplish-red foliage through the season. Red flowers and fruit.	4- 5 ft.	1.25	
	5- 6 ft.	1.50	
—Hoppa, Hansen's Red Flowering Crab. 20-25 ft.	3- 4 ft.	1.00	
A rapid upright growing kind with large red flowers, fruit, new growth, and wood. Very fine.	4- 5 ft.	1.25	10.00
	5- 6 ft.	1.50	12.50
—Red Flesh. 15-20 ft.	3- 4 ft.	1.00	9.00
Originated by Prof. Hansen. Large red flowers. This we consider one of the most beautiful of all the crabs with colored flowers. Fruit about the size of Whitney, a solid brilliant red, with red flesh, unexcelled for jelly and sauce.	4- 5 ft.	1.25	11.50
	5- 6 ft.	1.50	14.00
—Sargent, Malus sargentii. 6-8 ft.	3- 4 ft.	1.25	10.00
Low-growing with wide, horizontal branches. Clusters of white flowers with yellow stamens, and bright red fruit on long stems like cherries hanging into winter. One of the best kinds and lowest growing.	4- 5 ft.	1.50	12.50
	5- 6 ft.	2.00	
—Scheidecker. 15-20 ft.	3- 4 ft.	1.00	
Red buds opening double, pink. Yellow fruit.	4- 5 ft.	1.25	
	5- 6 ft.	1.50	

	Size	Each	Per 10
—Soulard. 20-30 ft.	3- 4 ft.	1.00	9.00
A hybrid of the wild crab with large beautiful pink, violet scented flowers and yellow apples. Makes a vigorous tall tree.	4- 5 ft.	1.25	10.00
	5- 6 ft.	1.50	12.50
—Spectabilis, Showy Crab. 12-15 ft.	3- 4 ft.	1.00	
Large, fragrant, bright pink flowers, semi-double. Small yellow fruit. Very prolific.	4- 5 ft.	1.25	
	5- 6 ft.	1.50	
CRANBERRY, Highbush. See Viburnum opulus.			
ELDER—Red Berried. 8 ft.	4- 5 ft.	.90	
White flowers in May and clusters of bright red fruit in July and August.			
ENKIANTHUS campanulatus, Red Vein Enkianthus.			
10-15 ft.	5- 6 ft.	5.00	
Clusters of small bell-shaped yellowish flowers veined, rosy-red in May. Brilliant scarlet fall coloring, likes acid soil. Dug B&B.	6- 8 ft.	6.00	
ELM—American White. 80-100 ft.	5- 6 ft.	.75	7.00
One of the best of all shade trees. Thrives in almost all situations.	6- 8 ft.	1.00	9.00
	8-10 ft.	1.25	11.00
—Chinese, Ulmus pumila. 40-50 ft.	5- 6 ft.	.75	6.50
Extremely rapid and dense growing. Suitable for dry soils. Twigs fine and much bent. Leaves small and remain green late. Cut back heavily in transplanting.	6- 8 ft.	1.00	9.00
	8-10 ft.	1.50	13.00
	10-12 ft.	2.00	
EUONYMUS alatus, Winged Wahoo. 6-10 ft.	18-24 in.	1.00	
Broad corky wings on the twigs, red berries and brilliant fall foliage makes this attractive at all seasons. Unexcelled for specimens.	2- 3 ft.	1.25	
—atropurpurea, Burning Bush. 8-10 ft.	3- 4 ft.	1.00	
Large, pendent, brilliant crimson fruit in fall. Somewhat like Bittersweet.	4- 5 ft.	1.25	
FORSYTHIA intermedia, Yellow Bells. 6-8 ft.	2- 3 ft.	.50	4.50
Arching branches. Blooms very early. Flower buds not very hardy. Branches may be forced early indoors.	3- 4 ft.	.60	5.50
—ovata. 3-5 ft.	2- 3 ft.	.90	8.00
The hardest and earliest kind. New shrub. Flowers medium sized, light yellow.			
GINKGO, Maidenhair Tree. 50-60 ft.	2- 3 ft.	1.25	
A rare and very old tree. Freest of all from diseases and insects.	5- 6 ft.	3.00	
HACKBERRY, Celtis occidentalis. 50-60 ft.	5- 6 ft.	1.25	11.00
A very strong, rapid growing shade tree with sweet berries, which hang until spring and attract birds.	6- 7 ft.	1.50	14.00
	7- 8 ft.	1.75	16.00

	Size	Each	Per 10
HONEYSUCKLE, <i>Bella albida</i>. 10-12 ft. Very hardy and thrifty. White flowers, red fruit.	3- 4 ft. 4- 5 ft.	.55 .65	5.00 6.00
—Morrow's. 6-8 ft. White flowers, red berries. Compact, spreading, excellent for tall hedges. Trims well.	3- 4 ft. 4- 5 ft.	.55 .65	5.00 6.00
—Tartarian. 8-10 ft. Upright. Pinkish flowers, red berries. Vigorous growing. Fine for tall screens.	2- 3 ft. 3- 4 ft.	.45 .55	4.00 5.00
—Siberica. 8-10 ft. A variety of the above with deeper pink flowers and bright red fruit.	2- 3 ft. 3- 4 ft.	.45 .55	4.00 5.00
HYDRANGEA, <i>arborescens grandiflora</i>, Hills of Snow. 4-5 ft. Large clusters of white flowers in July. Good for shady places.	2- 3 ft.	.75	
—<i>paniculata grandiflora</i>, Hardy Hydrangea, Peegee Hydrangea. 8-9 ft. Large panicles of white in August, changing to pink and bronzy-green in autumn.	2- 3 ft.	.75	
—Tree form of the above.	3- 4 ft.	1.50	
HYPERICUM aureum, Golden St. Johnswort. 3-4 ft...2-2½ ft. Blue-green foliage. Bright yellow flowers in July-August. A fine dwarf shrub.		.70	6.50
KENTUCKY COFFEE TREE, <i>Gymnocladus dioica</i>. 40-50 ft. Immense compound leaves, 2 or 3 feet long, 10-12 ft. coarse, rugged branches and rough bark.	8-10 ft.	4.00	
KOLKWITZIA amabilis, Chinese Beautybush. 6-10 ft. Bell-shaped pink flowers with orange centers, in great profusion in June. Rapid growing arching branches. One of the best new hardy shrubs.	3- 4 ft.	5.00 1.00	9.00
LILAC SPECIES AND HYBRIDS: Botanically they are syringa.			
A number of other choice new kinds will be ready in the fall of 1943. If you are especially interested in French, Hybrid, or Species Lilacs send for our list in early fall.			
—<i>S. Chinensis (Persian or Rothomagensis)</i>. 8-10 ft... 2- 3 ft. Violet flowers, slender arching branches. Very profuse blooming. A splendid shrub.	3- 4 ft. 4- 5 ft.	.60 1.00	5.00 9.00
—<i>Chinensis alba (Rothomagensis alba)</i>. 6-8 ft. Resembles above, except is almost white, and the twigs are very slender. An avalanche of flowers when in bloom.	2- 3 ft. 3- 4 ft.	.60 .75	5.00 6.50

		Size	Each	Per 10
— Chinensis mertensis.	8-10 ft.	2- 3 ft.	.60	5.00
A pinkish form of chinensis.		3- 4 ft.	.75	6.50
— Hiawatha.		2- 3 ft.	1.25	
A hybrid with very large leaves and clusters of rose colored flowers in June.				
— Dilitata.		2- 3 ft.	1.25	
Blooms earliest, and before leaves open, pale lilac color. Unlike other lilacs, the leaves color beautifully in the fall.		3- 4 ft.	1.50	
— Lutece, (Henryi).	10-12 ft.	3- 4 ft.	1.25	
Large panicles of violet flowers in great profusion later than most other lilacs.				
— S. japonica, Japanese Tree Lilac.	15-20 ft.	4- 5 ft.	1.50	
Yellowish-white flowers, very late.				
— Mirandi.	One of the Preston Hybrids.	18-24 in.	1.00	
Immense flower clusters appearing pure pink from a distance. Very vigorous.		2- 3 ft.	1.25	
— S. villosa, Late Lilac.	7-8 ft.	18-24 in.	.75	6.50
Pale pinkish-lilac. June. Scented. A compact, upright grower.		2- 3 ft.	1.00	9.00
“FRENCH LILACS.” Choice named varieties of <i>Syringa vulgaris</i> . Own roots. Very superior to common lilacs. Several other varieties are available but in quantities too limited to list in the spring of 1943.				
— Adelaide Dunbar.		2- 3 ft.	1.50	
Double. Dark reddish-purple buds opening somewhat lighter.				
— Alphonse Lavallee.		2- 3 ft.	1.25	
Double. Clear lavender-violet, deeper within. Fragrant.				
— Berryer.		2- 3 ft.	1.00	
Semi-double. Tall, early, mauve with red shadings. Considered one of the finest early varieties.				
— Chas. X.		2- 3 ft.	1.00	
Single. A bluish violet-red. Profuse blooming, fine for cutting. A very popular old variety.				
— Clara Cochet.		2- 3 ft.	1.00	
Single. Delicate pinkish lilac approaching flesh color. Very attractive.				
— Congo.		2- 3 ft.	1.25	
Single. Large wine-red flowers becoming dull purple. Very profuse bloomer.				

	Size	Each	Per 10
— Deuil de Emile Galle.	2- 3 ft.	1.25	
Double. Large reddish buds opening pale pink to lavender and white within. Beautiful combination of colors.			
— Dr. Von Regal.	18-24 in.	.75	7.00
Single. Rose-mauve.	2- 3 ft.	1.00	9.00
— Edith Cavell.	2- 3 ft.	1.25	
Double. Cream colored buds opening milk white.			
— Jean Bart.	18-24 in.	.75	7.00
Double. Rose-violet, carmine buds.	2- 3 ft.	1.00	9.00
— Kate Harlan.	2- 3 ft.	1.25	
Single. Buds are greenish and flowers white with a tinge of green.			
— Leon Gambetta.	2- 3 ft.	1.25	
Double. Very large deep pink buds opening delicate pink, lavender and white, like little roses.			
— Lucie Baltet.	2- 3 ft.	1.25	
Single. Bright coppery-pink buds opening paler pink. Very distinct and beautiful.	3- 4 ft.	1.50	
— Ludwig Spaeth.	18-24 in.	1.00	
Single. Very dark reddish-purple. Splendid. It always attracts attention.	2- 3 ft.	1.25	
— Marechal Lannes.	2- 3 ft.	1.50	
Double. Reddish-violet buds opening into immense purplish-violet flowers.			
— Maurice Barres.	2- 3 ft.	1.50	
Single. Large widely branched racemes, of azure-lilac flowers.			
— Maurice Vilmorin.	2- 3 ft.	1.00	
Double. Very large compact clusters of blue and pink with white eye.	3- 4 ft.	1.25	
— Mme. Abel Chatenay.	18-24 in.	1.00	
Double. Tall and vigorous. Greenish white buds slowly opening pure white.	2- 3 ft.	1.25	
— Mme. Antoine Buchner.	18-24 in.	1.00	
Double. Tall, late. Soft rosy-mauve.	2- 3 ft.	1.25	
— Mme. Casimir Perier.	18-24 in.	1.00	9.00
Double. Very free blooming. Large, creamy-white.	2- 3 ft.	1.25	11.00
— Mme. Lemoine.	2- 3 ft.	1.25	
Double. Snow white in large clusters; very fragrant. One of the best double white varieties.			
— Montaigne.	2- 3 ft.	1.25	
Double. Pinkish-mauve, large clusters.			

	Size	Each	Per 10
— Oliver de Serres.	2- 3 ft.	1.50	
Double. Heavy compact thyrses of pale lavender-blue, freely produced.			
— Paul Thirion.	2- 3 ft.	1.50	
Double. Carmine buds opening into large claret-rose flowers.			
— Pres. Fallieres.	2- 3 ft.	1.25	
Double. Pale lavender, very large florets and clusters. A very fine kind.	3- 4 ft.	1.50	
— Pres. Lincoln.	2- 3 ft.	1.25	
Single. Wedgwood-blue. Considered the choicest of the blue varieties.			
— Pres. Viger.	2- 3 ft.	1.25	
Double. Purple buds opening soft mauve.	3- 4 ft.	1.50	
— Prince de Beauvau.	18-24 in.	1.00	
Double. Bluish-lilac.			
— Ruhm Von Horstenstein.	2- 3 ft.	1.25	
Single. Large reddish-purple on long narrow trusses. Very prolific.			
— Senateur Volland.	2- 3 ft.	1.25	
Double. Pink buds opening light lilac touched with bright pink. Very dainty.			
— Volcan.	2- 3 ft.	1.25	
Single. Large shapely panicles of flowers which approach red in color.			
— Wm. Robinson.	2- 3 ft.	1.25	
Double. Large flowers pinkish-red buds opening lavender. A very much admired variety.			
LINDEN—American, <i>Tilia americana.</i> 60-80 ft.	5- 6 ft.	1.25	
Large leaves, splendid shade tree.	6- 8 ft.	1.60	
	8-10 ft.	2.00	15.00
LOCUST—Honey. 50-60 ft.	4- 5 ft.	.90	
Beautiful pinnate, lacey foliage. Very hardy, strong tree.	5- 6 ft.	1.50	
Thornless. 50-60 ft.	4- 5 ft.	.90	
A vigorous wide-spreading tree with fern-like foliage. Succeeds on any soil.	5- 6 ft.	1.50	
MAGNOLIA—Soulangeana. 15-18 ft.	3- 4 ft.	9.00	
Very large purplish-pink and white flowers before the leaves open. Plant in protected places.			
MAPLE—Hard or Sugar. 50-75 ft.	5- 6 ft.	1.50	
One of the best shade trees; colors brilliantly in fall. Grows fairly rapidly in favorable locations.	6- 8 ft.	2.00	

		Size	Each	Per 10
—Norway, <i>Acer platanoides</i> .	50-60 ft.	5- 6 ft.	1.50	
A splendid, dense, round topped tree. Leaves remain green until late.		6- 8 ft.	2.00	
Schwedler, Purple Norway.	40-50 ft.	6- 7 ft.	2.00	whips
Large, bright purplish-red foliage in spring, turning bronzy-green in summer and yellow in fall.		6- 8 ft.	3.00	
Budded on common Norway Maple. One of the most colorful shade trees.				
—Red, <i>Acer rubrum</i> .	50-60 ft.	5- 6 ft.	1.50	
Red flowers in spring and very brilliant crimson and orange fall coloring. Prefers moist acid soil.		6- 8 ft.	2.00	
		8-10 ft.	3.00	
—Soft.	60 ft.	8-10 ft.	1.50	
A well known very rapid growing native shade tree.		10-12 ft.	2.00	
MOUNTAIN ASH—American.	20 ft.	4- 5 ft.	1.25	
Sometimes shrubby. Resembles the European, but usually has larger clusters of brighter red fruits.		5- 6 ft.	1.50	
MULBERRY—Russian.	20-30 ft.	4- 5 ft.	.75	
Its fruit attracts birds from the more valuable fruits in June.				
OAK—Burr, <i>Quercus macrocarpa</i> .	70-90 ft.	5- 6 ft.	2.00	
A sturdy, long lived, native tree with picturesque corky branches.		6- 8 ft.	3.00	
		8-10 ft.	4.00	
—Pin, <i>Quercus Palustris</i> .	70-90 ft.	5- 6 ft.	2.25	
Grows rapidly in moist soil. Leaves are retained late and color splendidly. Transplants easier than most oaks. Lower branches somewhat drooping.		6- 8 ft.	3.00	
		8-10 ft.	4.00	
—Red, <i>Quercus rubra</i> .	60-80 ft.	4- 5 ft.	1.50	
Rapid growing. Red and green autumn colors. Adapted to drier soils than Pin Oak and out-grows it in such places.		5- 6 ft.	2.50	
		6- 8 ft.	3.25	
		8-10 ft.	4.50	
OLIVE—Russian.	15-20 ft.	4- 5 ft.	.90	
Leaves and young growth covered with silvery scales. Fragrant yellow flowers.		5- 6 ft.	1.25	
PHILADELPHUS, Mockorange, <i>Syringa</i> .				
—Ophelia.	5-6 ft.	18-24 in.	.50	4.50
Single large very fragrant flowers in great profusion.		2- 3 ft.	.60	5.50
—virginalis, Virginal Mockorange.	6-8 ft.	2- 3 ft.	.75	7.00
Large semi-double flowers somewhat continuously.		3- 4 ft.	.90	8.50
POPLAR—Bolleana, Silver Leaved Poplar.	50 ft.	5- 6 ft.	1.00	9.00
A rapid growing, very columnar tree with leaves silver underneath, and grayish-green bark.		6- 8 ft.	1.25	11.00

	Size	Each	Per 10
—Lombardy. 50-70 ft.	5- 6 ft.	.60	5.50
Strictly upright in habit. Branched to the ground.	6- 8 ft.	.75	6.50
A most useful tree for accents and tall screens.	8-10 ft.	1.00	9.00
PRUNUS—cistena, Hansen's Purple Leaved Plum.			
6-8 ft.	2- 3 ft.	.75	6.50
Bright reddish-purple foliage throughout the season. Purplish-pink blossoms. The best red-leaved shrub or small tree.	3- 4 ft.	1.00	9.00
—glandulosa, Pink Flowering Almond. 5-6 ft.	2- 3 ft.	1.00	
Large, double, pink flowers before the leaves.	3- 4 ft.	1.25	
—nana, Dwarf Siberian Almond. 2-3 ft.	12-15 in.	.50	4.00
Single pink flowers very early. Endures extreme cold and drought. A good little shrub for dry places.			
—padus, May Day Tree. 30-40 ft.	5- 6 ft.	1.25	
A wide-spreading tree, earliest to leaf out in spring. Racemes of white fragrant flowers May 1st. Should be planted as early as possible.	6- 8 ft.	1.50	
—tomentosa, Nanking Cherry. 6-10 ft.	3- 4 ft.	.75	6.50
A splendid shrub or small tree producing a mass of pale pink flowers very early. Takes the place of cherries where they are not hardy. The fruit is smaller but earlier and equally good. Attractive rugose foliage.	4- 5 ft.	.90	8.50
—triloba, Double Flowering Plum. 7-8 ft.	4- 5 ft.	1.25	
Clear pink, double rose-like flowers in April-May. Much admired by everyone.	5- 6 ft.	1.50	
QUINCE—Japanese Flowering, Cydonia japonica.			
4-5 ft.	18-24 in.	.50	
Scarlet flowers before the glossy green leaves.			
RED BUD, Judas Tree, Cercis canadensis. 18 ft.	3- 4 ft.	1.00	
Rose pink flowers in advance of the leaves. Likes rich soil. Somewhat tender when small.	4- 5 ft.	1.25	
RHODOTYPOS kerriodies, Jetbead, White Kerria.			
3-6 ft.	2- 3 ft.	.60	5.00
Single white flowers. Black shining seeds. Endures considerable shade.			
SNOWBALL—See Viburnum opulus sterilis.			
SORBARIA—sorbifolia, Ash Leaved Spirea. 2-4 ft.	2- 3 ft.	.60	5.00
Splendid foliage, white plumes in July.			
SPIREA—Anthony Waterer. 2-3 ft.	18-24 in.	.55	5.00
Very dwarf and compact, pink flowers all summer.			
—thunbergi, Thunberg Spirea. 5-7 ft.	18-24 in.	.50	4.00
Slender, arching branches and fine, feathery light green foliage. White.	2- 3 ft.	.60	5.00

	Size	Each	Per 10
— vanhouttei, Vanhoutte Spirea. 5-7 ft.	2- 3 ft.	.40	3.50
Commonly called Bridal Wreath. White flowers in May. Graceful habit. Thrives almost anywhere. Used for hedges.	3- 4 ft.	.50	4.00
SUMAC—Aromatic, Rhus canadensis. 4-5 ft.	2- 3 ft.	.75	
Fragrant Sumac. Beautiful aromatic leaves. Coral red fruits in June. Endures drought. Very brilliant fall coloring.			
SYMPHORICARPOS—White Snowberry, race-mosus. 3-5 ft.	18-24 in.	.35	3.00
Endures much shade. Large white berries in fall. Needs moisture.	2- 3 ft.	.45	4.00
TAMARIX pentandra, Blue-Green Tamarix. 4-8 ft....	3- 4 ft.	.50	4.00
Fine feathery blue-green foliage. Racemes of delicate pink flowers.	4- 5 ft.	.60	5.00
THORN, Crataegus, Hawthorn.			
— coccinea, Thicket Hawthorn. 15-20 ft.	5- 6 ft.	2.00	18.00
White flowers in May-June, large dull red fruit in autumn. Spines long and curved, flowers large. Very hardy.	6- 8 ft.	3.00	28.00
— coccinoides. 18-20 ft.	3- 4 ft.	1.25	
A beautiful little tree with showy flowers and lustrous, dark crimson fruit in October.	4- 5 ft.	1.75	
— Cordata, Washington Hawthorn. 30 ft.	4- 5 ft.	1.50	14.00
A very choice quite upright kind. Clusters of small bright red fruit are long retained. Very brilliant fall coloring. Many consider this the best of all Hawthorns.	5- 6 ft.	2.00	18.00
— Crus Galli. 15-18 ft.	3- 4 ft.	1.25	
Wide spreading, long thorns. Shiny dark green leaves coloring orange and scarlet in fall.	4- 5 ft.	1.75	
— Nitida, Glossy Hawthorn. 18-20 ft.	5- 6 ft.	2.00	
A round headed tree with lustrous dark-green foliage coloring beautifully in fall. Fruit dull red, retained thru winter.			
VIBURNUM—carlesi, Fragrant V., Carles V. 4-6 ft....	18-24 in.	2.50	
Cymes of deep pink buds opening pink and fading to white. Very fragrant; April.			
— dentatum, Arrowwood. 5-6 ft.	18-24 in.	.60	5.00
Upright branches. Good foliage with gorgeous fall coloring. Creamy-white flowers. Small bluish-black berries attract birds in September.	2- 3 ft.	.75	6.50
3- 4 ft.	1.00	9.00	
— Iantana, Wayfaring Tree. 10-15 ft.	2- 3 ft.	.60	
Flowers in flat clusters in June-July. Fruit red changing to black. Leaves almost evergreen.	3- 4 ft.	.75	

		Size	Each	Per 10
— lentago, Nannyberry, Sweet V.	Up to 30 ft.	3- 4 ft.	1.00	
	Good foliage with brilliant fall coloring. Large cymes of white flowers. Edible black berries. Likes moist soil.			
— opulis sterilis, Snowball.	8-10 ft.	2- 3 ft.	.75	
	An old well known shrub. Large balls of white flowers, producing no fruit or seed.			
— Sargent, Sargent Cranberry bush.	8-10 ft.	2- 3 ft.	1.00	
	The most beautiful of all the Highbush Cranberries with us. Beautiful creamy-white flowers. Elongated very brilliant red fruits.			
— Trilobum, American Highbush Cranberry.				
	One of the best of all shrubs. Bright red fruit retained until winter. The following varieties have been named by the U. S. D. A. because of their superior fruit.			
— Andrews				
— Hahs				
— Wentworth.	Either variety.	3- 4 ft.	1.00	
WEIGELA—Eva Rathke, Red Flowering Weigela.				
4-6 ft.	2- 3 ft.	.60		
Rich reddish-purple flowers June to August.				
— rosea, Pink Weigela.	4-6 ft.	2- 3 ft.	.50	
Mass of pink in June. For protected places.				
— rubra venusta.	4-6 ft.	3- 4 ft.	.75	
Resembles Eva Rathke but flowers are a lighter and brighter red.				
WILLOW—Niobe Weeping.	40-50 ft.	5- 6 ft.	1.00	
Golden yellow bark, very long penulous branches.	6- 8 ft.	1.50		
Strikingly beautiful as a specimen or at the waterside. Very rapid grower.	8-10 ft.	2.00		
WITCH HAZEL, Hamamelis virginiana.	10-12 ft.	2- 3 ft.	.90	8.00
Interesting yellow flowers, October to December.	3- 4 ft.	1.00		9.00
Best in moist, half-shady places.				
— Hamamelis vernalis, Vernal Witch Hazel.	5-6 ft.	2- 3 ft.	1.00	
A kind blooming in March. Retains green leaves very late.				

HEDGE PLANTS

See also Russian Mulberry and Chinese Elm under Forest Tree Seedlings, and Caragana, Honeysuckles, Spireas, Alpine Currants, and other shrubs in the previous section.

BARBERRY—Truehedge, Columnberry. (U. S. Plant Patent 110).

A very dense upright form of Japanese Barberry with glossy foliage growing much like boxwood. Makes an excellent formal hedge without much trimming.

18-24 in.	5 for \$2.00	25 for \$ 8.25	100 for \$30.00
2-2½ ft.	5 for \$2.35	25 for \$10.00	100 for \$36.00

—**Japanese, Berberis thunbergi.** Brilliant red berries and fall foliage. An unexcelled thorny hedge plant for trimmed or untrimmed hedges. Also good in the shrubbery border and foundation plantings.

	Size	Each	Per 10	Per 100
2 or 3 year branched.	15-18 in.	\$0.20	\$1.80	\$17.50
Heavy 3-year.	18-24 in.	.25	2.40	22.50
Heavy 3-year.	2-2½ ft.	.35	3.00	

	Size	Each	Per 10	Per 100
— Amur River North. 12-14 ft.	18-24 in.		\$1.25	\$10.00
Best for closely trimmed hedges and most satisfactory privet here.	2- 3 ft.		1.50	14.00

— Regals, True Type. 5- 6 ft.	12-18 in.	\$0.30	\$2.50
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CREEPERS AND CLIMBING VINES

Climbing roses are grouped under Roses, and very small kinds are among Perennials. The No. 1 grade are heavy two or three year plants.

	Size	Each	Per 10
AMPELOPSIS englemanni, Engleman Ivy.No. 1		\$0.40	\$3.00
Hardest vine clinging to smooth walls.			
— heterophylla, Porcelain Ivy.2 year No. 1		.60	5.00
Climbs by tendrils only. Produces glossy green, blue, pink and lavender berries in the same clusters. Good for covering fences or trellises.			
— veitchii, Boston Ivy.3 year No. 1		.50	4.50
Very refined, clings closer but is less hardy than englemanni.			
BITTERSWEET—Oriental, Celastrus orbiculatus.No. 1		.50	4.50
Similar to the native bittersweet; more fruitful but somewhat smaller fruit.			

CLEMATIS. All like cool, well-drained, but moist, limestone soil with sun for the tops.

— Henryi. Large single, white.	2 year No. 1	1.00
— Jackmanni. Large, violet-purple.	2 year No. 1	1.00
— Mad. Ed Andre. Large, velvety-red.	2 year No. 1	1.00

	Size	Each	Per 10
— <i>paniculata</i> , Japanese Clematis.	2 year No. 1	.50	
Great masses of small fragrant white flowers in September. Hardiest of all.			
HONEYSUCKLE—Scarlet Trumpet, Lonicera sempervirens.	No. 1	.50	
Almost evergreen. Long coral red flowers continuously. Excellent for cutting.			
— Halls, Lonicera japonica halliana.	No. 1	.35	3.00
White changing to yellow, fragrant. July-September.			
TRUMPET VINE, Bignonia radicans.	No. 1	.50	
Upright growing vine. Long trumpet shaped. Orange-scarlet flowers.			
WISTERIA—Lilac-purple.	No. 1	.50	
Long branches of purplish-blue flowers in May. Vigorous.			

EVERGREENS

TRANSPLANTING. All evergreens we offer are dug fresh as sent out. If the buyer comes to the Nursery after them, which is the best way to do, they can be lifted directly from the row to his truck or trailer and have a minimum of exposure. This is very important with those dug bare rooted. If the roots of evergreens once become thoroughly dry in handling or planting they cannot be revived, as can other trees. Failure in transplanting them is due largely to allowing them to become dry while planting; to not packing good mellow soil, or much better yet a mixture of equal parts of such soil and pulverized, moist peat, very firmly around the roots; or to not watering them and conserving the moisture about them through the summer by frequent shallow cultivation or by mulching. An area 3 to 4 inches deep and 3 feet in diameter or as wide as the spread of the tree can be filled with pulverized peat instead of soil and will provide the ideal means of getting water into the soil about the roots and holding it. August and September are critical months for newly planted evergreens unless there is ample moisture.

SPACING. For single row windbreaks plant pines and spruces 7 to 8 feet apart; four double rows of pines or spruces, 10 to 12 feet. For low hedges to be sheared, plant 18 to 24 inches apart, depending on the size of the plants.

SOILS. Plant pines on dry or well-drained soil. All pines, and particularly White Pine, may be short-lived if planted in very rich soil such as an old feed lot, or where drainage from a feed lot runs onto them. In places where it is quite wet at times spruce will do better than pine and in very moist or swampy soil Arborvitae is best of all.

PESTS. Red Spider or Mite causes much damage if there are not frequent dashing showers in early summer to destroy the young and a rusty appearance is likely to be due to them. Water applied under a high pressure to the top every few days is an effective remedy. Pine Needle Scale is found almost everywhere and under favorable conditions may become a serious pest. White spots on the leaves of pine or spruce are likely due to it. Both this and Red Spider can be controlled by a single thorough spraying with Lime Sulphur such as orchardists use, in the regular dormant strength (1 to 8 of water) applied on warm days in spring before the new growth starts. Soluble oil sprays also are effective, but must be used with much caution. With frequent dashing showers through June, when the young are crawling, neither of these pests is likely to be serious.

BARE ROOTED EVERGREENS

For windbreaks and hedges

PRICES in this section are for unsheared trees and do not include Ball and Burlap. The crop of windbreak evergreens now being offered was produced, with much cheaper labor than now prevails, so are still quoted at the old prices. Material increases can be expected after this season to cover the higher production costs.

	Size	Each	Per 10	Per 100
ARBORVITAE—American. 15-30 ft.	18-24 in. XX	\$0.60	\$5.00	\$

The common Arborvitae used for hedges or windbreaks on soil too wet for other evergreens. Rows should run north and south so the sun will not hit on one side too long and possibly burn them.

PINE—ponderosa, Bull Pine. 50-60 ft.	15-18 in. XX	.50	4.50	40.00
Very long coarse leaves and stiff rugged branches not easily broken.	18-24 in. XX	.60	5.50	50.00
Endures extreme drought. Requires full sun and tolerates no shade.	2- 3 ft. XX	.75	6.50	60.00

—White Pine. 70-80 ft.	18-24 in. XX	.60	5.50	50.00
In spite of some breakage at times from heavy loads of ice, and that an occasional spraying may be needed to protect it from insect pests, we still think White Pine is one of the best of all windbreak trees. On a suitable soil and location it makes a very long lived beautiful tree retaining its branches to the ground. Do not plant it where drainage is poor nor on soil too rich from sometime having been a feed lot or having the drainage from one across it. After being out of the windbreak list for several years, it is again becoming available.	2- 3 ft. XX	.75	6.50	60.00

		Size	Each	Per 10	Per 100
SPRUCE—Norway.	60-80 ft.	18-24 in. XX	.60	4.50	40.00
One of the most rapid growing spruces. Planted very extensively for windbreaks.		2- 3 ft. XX	.80	5.50	50.00

SPECIMEN EVERGREENS WITH BALL AND BURLAP

The following prices are for well developed trees mostly sheared, dug with a solid ball of earth and securely burlapped and bound. Read the paragraph on transplanting on the previous page. Do not remove the burlap. Dig the hole large enough that it can have a 2-inch lining of peat. After the tree is in the hole and enough mixed peat and soil filled in to hold it, cut the burlap loose around the top and pour in plenty of water, otherwise proceed as with bare rooted trees.

		Size	Each
ARBORVITAE—American, <i>Thuja occidentalis</i>.			
—Douglas Pyramid.	15-20 ft.	4-5 ft. XXX	\$3.50
A very narrow pyramid with twisted clusters of foliage, open growing unless sheared.		5-6 ft. XXX	4.00
—Geo. Peabody's Golden.	12-15 ft.	4-5 ft. XXX	4.00
A clear golden yellow on the tips; needs shearing to make it compact. Best golden variety. Drought resisting and hardy.		5-6 ft. XXX	5.00
		6-8 ft. XXX	6.00
—Pyramidal.	15-20 ft.	18-24 in. XXX	2.00
Grows in columnar form without shearing. Brighter and darker green than the common Arborvitae. Much used in entrance, foundation, and formal plantings. Best trained to one stem; no other training is needed. Like other Arborvitae, sometimes sunburned if too severely exposed to the hot sun of late winter, and prefers cool moist soil.		2-2½ ft. XXX	2.50
		2½-3 ft. XXX	3.00
		3-3½ ft. XXX	3.50
FIR—Concolor.	70-80 ft.	18-24 in. XXX	2.00
The Silver Fir of Colorado. The handsomest tall evergreen which grows here, and the most free from pests. The foliage is long, flat, curved, and not prickly like other evergreen foliage. The color ranges from silvery blue to clear green. Old trees have a regular conical outline and retain their branches to the ground. Concolors endure heat and drought splendidly but do not like being crowded and do not thrive in a very smoky or sooty atmosphere.		2-2½ ft. XXX	2.50
		2½-3 ft. XXX	3.00
		3-4 ft. XXX	4.00
		4-5 ft. XXX	5.00
		5-6 ft. XXX	6.50
		6-7 ft. XXX	8.00
		7-8 ft. XXX	10.00
—Douglas, <i>Pseudotsuga douglasii</i>.	The Colorado type. Also known as Douglas Spruce. 70-80 ft.	18-24 in. XXX	1.50
Soft, flexible, beautiful green foliage. Vigorous and graceful, retaining its beauty in old age. Tolerates considerable shade and much drought. Easier transplanted than most evergreens.		2-3 ft. XXX	2.00
		3-4 ft. XXX	3.00
		4-5 ft. XXX	4.00
		5-6 ft. XXX	5.00

	Size		Each
— Lasiocarpa, Alpine Fir.	18-24 in. XXX		2.50
A very slow growing compact variety from the Rocky Mountains, having dark green foliage with a light stripe.			
HEMLOCK—Canadian, Tsuga Canadensis. 30-40 ft.....	18-24 in. XXX	2.00	
Native of Northeastern U. S. A slow growing, graceful tree with short flat needles, bright green above and silvery striped beneath. It shears splendidly. Some shade is preferred and it tolerates full shade, so is indispensable for many places where there is too much shade for other evergreens. If fully exposed to the sun and dry winds Hemlocks may be burned. In planting use plenty of peat.	2-2½ ft. XXX	2.50	
	2½-3 ft. XXX	3.00	
	3-4 ft. XXX	4.00	
	4-5 ft. XXX	5.00	
	5-6 ft. XXX	7.00	
— Carolina, Tsuga caroliniana. 30-40 ft.	3-4 ft. XXX	7.50	
Darker green and more compact than the Canadian Hemlock. A rare and very beautiful species, some consider it the most beautiful of all evergreens.			
JUNIPER—Juniperus.			
— Chinese, J. chinensis. 15-20 ft.	2-3 ft. XXX	3.00	
A beautiful pyramidal tree with blue-green quite prickly foliage. Not subject to Cedar Apple Rust, and endures hot dry conditions.	3-4 ft. XXX	4.00	
— Pfitzer, J. chinensis pfitzeriana. 5-6 ft.	15-18 in. XXX	2.50	
A dwarf variety of the Chinese Juniper. The foliage is bluish-green and the branches grow out horizontally from the stem, which gives the tree an individuality of its own. Sizes apply to width rather than height. This is the best Juniper for foundation planting.	18-24 in. XXX	3.00	
	2-2½ ft. XXX	4.50	
— Sargent, J. Chinensis sargentii. 1 ft.	2-2½ ft. XX	3.00	
A prostrate form of Chinese Juniper. Makes a dense mat with both scale-like and pointed leaves. Prefers much sun.			
— Meyer Juniper, J. squamata meyeri. 5-6 ft.	15-18 in. XX	2.50	
A very irregular shaped shrub with dense prickly foliage, blue or sometimes pinkish red. The most colorful of all, and unique appearing.			
— Blue Creeping, J. horizontalis glauca.	2-2½ ft. XX	2.50	
A prostrate form with long creeping branches and blue foliage. Very fine for walls.	2½-3 ft. XX	3.50	
	3-4 ft. XX	4.00	
— Scopulorm, Colorado Juniper.	18-24 in. XX	2.50	
Especially fine in dry hot climates. Upright with silver green quite smooth foliage.	2-2½ ft. XX	3.00	
	2½-3 ft. XX	3.50	
	3-3½ ft. XX	4.00	

		Size		Each
— Red Cedar, J. virginiana.	25-30 ft.	18-24 in. XX		1.50
Sheared specimens of our native Red Cedar. Splendid blue or green in summer, purplish red in winter. Subject to Cedar Apple Rust.		2-2½ ft. XX		2.00
		2½-3 ft. XX		2.50
		3-3½ ft. XX		3.00
		3½-4 ft. XX		4.00
		4-5 ft. XX		5.00
— Cannarti, J. virginiana cannarti.	15-20 ft.	2½-3 ft. XX		3.50
A grafted form, clear green throughout the year. Needs shearing to make a close, regular pyramid. Unexcelled year round color.		3-3½ ft. XX		4.00
		3½-4 ft. XX		5.00
— Silver Red Cedar, J. virginiana glauca.	15 ft.	4-5 ft. XX		6.00
Upright conical form. Very bright silvery blue in spring. Irregular form unless sheared.				
— Dundee, J. virginiana pyramidiforma hilli.	15-20 ft.	2-2½ ft. XX		3.00
A grafted, narrow pyramidal form with compact regular growth without shearing.		2½-3 ft. XX		4.00
		3-3½ ft. XX		5.00
— Andorra, J. communis depressa plumosa.	1½ ft.	2-2½ ft. XX		4.00
A rich bright green in spring and summer, and attractive purplish bronze in winter. Very hardy and prefers mostly sun. Very rapid growing.				
LARCH—European.	50-60 ft.	2-2½ ft. XX		2.50
A conifer, but not an evergreen. Makes a strikingly beautiful specimen in large landscapes. The foliage is especially beautiful; soft green in spring, and soft yellow in the fall.		3-4 ft. XX		3.50
		4-5 ft. XX		4.00
PINE—Mugho, Dwarf Mountain Pine.	3-5 ft.	15-18 in. XXX		3.00
This makes a compact dome-shaped bush broader than high. Sizes apply to width rather than height. Endures some shade and much heat and drought. Thrives in any well-drained soil. One of the best of all dwarf evergreens.		18-24 in. XXX		4.00
		2-2½ ft. XXX		5.00
		3-3½ ft. XXX		7.50
		4-5 ft. XXX		10.00
— Scotch, P. sylvestris.	25-30 ft.	3-4 ft. XXX		3.00
Bright green at all times, and endures city conditions exceptionally well. Shears well.		4-5 ft. XXX		4.00
SPRUCE—Black Hills.	50-70 ft.	3-3½ ft. XXX		3.50
A native of the Black Hills. It does very well over a wide range and makes the finest specimens of all spruce. This is a very variable species, ranging from very compact dwarfs to more open, rapid-growing trees, and from clear green to silvery blue-green. Our trees are mostly a very compact and slow-growing type. In dry seasons it should be closely watched and treated for Red Spider.		3½-4 ft. XXX		4.00
		4-5 ft. XXX		5.00
		5-6 ft. XXX		6.00
		6-7 ft. XXX		7.50
		7-8 ft. XXX		9.00
— Colorado Blue, Picea pungens.	25-40 ft.			
Blue or green as listed below. Otherwise than color of the foliage they are the same.				

	Size		Each
— Selected Blue Specimens, Shiners.	12-15 in. XXX		2.00
More used as a specimen tree than any other evergreen. Rather slow-growing, regular, and compact with very sharply pointed blue foliage. Subject to Red Spider injury if neglected.	15-18 in. XXX		2.50
	18-24 in. XXX		3.00
	2-2½ ft. XXX		4.00
	2½-3 ft. XXX		5.00
— Green Specimens.	15-18 in. XXX		1.50
The same fine, compact form as the Shiners, but with clear green or slightly blue-green foliage. Sometimes but not always, they develop a blue color with age.	18-24 in. XXX		2.00
	2-2½ ft. XXX		2.50
	2½-3 ft. XXX		3.00
	3-4 ft. XXX		4.00
— Servian Spruce, <i>Picea omorika</i>.	18-24 in. XXX		2.50
An attractive, slow growing, dense, pyramidal tree reaching considerable height. Leaves bright green, with white strips above.	2-3 ft. XXX		3.00

YEWES (TAXUS) are particularly valuable for planting in shady places and cities where the smoky atmosphere is injurious to many evergreens. Their bright red fruits among the dark green leaves make them the most interesting of all evergreens in late summer. They stand much trimming, are long lived, and free from pests. Plant in rich soil, well mixed with peat and humus.

We have thousands of small Yews growing in the field but the supply of larger sizes is very limited, and we prefer that prospective buyers write for available sizes and prices of kinds wanted. Trees of several other varieties can be furnished in some sizes but in limited number.

— <i>cuspidata capitata</i>, Upright Japanese Yew.	8-12 ft.	15-18 in. XX	2.00
Broadly pyramidal. May be sheared into any form.	18-24 in. XX		3.00
— <i>cuspidata media hicksi</i>, Hick's Yew.	8-10 ft.	18-24 in. XX	3.00
A very narrow, columnar, compact form with very darkest green foliage. The best columnar tree for a shady place. Endures considerable heat.	2-2½ ft. XX		4.00
— <i>cuspidata spreading</i>, Spreading Japanese Yew.	4-6 ft.	15-18 in. XX	2.00
A spreading, irregular, bush form. Can be kept very low by a little shearing.	18-24 in. XX		3.00

ROSES

All plants offered are two-year field-grown bushes. Cut back the top so only two or three of the stronger canes are left six inches long, and plant a little deeper than they grew, in well-drained rich soil. Sun until about 2 p.m. then shade, is the ideal exposure.

We have selected our list of varieties so it includes only the most satisfactory patented varieties, the old standbys, and newer varieties which are reported most satisfactory in the "Proof of the Pudding," reports to the American Rose Society. These will give the most rose value per dollar spent for plants. Of the dozens of new varieties which are highly exploited each year by their introducers only a very few make good.

CLIMBING ROSES

(All need some winter protection in Central Iowa except as noted)

AMERICAN PILLAR, 50c: Immense clusters; large, single; pink with a white eye. Very vigorous.

BLAZE, (Plant Patent No. 10), \$1.00 each, \$10.00 per dozen: A hardy vigorous climbing rose similar to Paul's Scarlet. Recurrent bloomer. Scarlet crimson flowers.

CHAPLIN'S PINK, 50c: Clusters of bright pink flowers of the Paul's Scarlet type.

CRIMSON RAMBLER, 50c: Bright red, large clusters. Very popular old climber.

CLIMBING AMERICAN BEAUTY, 50c: Large rich carmine, fragrant.

DR. VAN FLEET, 50c: Large, flesh pink, perfectly formed, pointed buds, long stems. Vigorous and hardy. One of the best.

DOROTHY PERKINS, 50c: Delicate pink, large clusters, vigorous and healthy.

EXCELSA, Red Dorothy Perkins, 50c: Lighter red than Crimson Rambler but more vigorous. Very heavy bloomer.

HIAWATHA, 50c: Large clusters of flowers, small, single, bright carmine with white eye. Vigorous and hardy.

MARY WALLACE, 50c: A pillar Rose with large, glossy foliage, blooming with great freedom about the middle of June, and bearing large numbers of fine buds in summer and fall. Flowers very large, semi-double, of bright, clear rose-pink with salmon base.

MAX GRAF, 60c: Large, single, shining pink, prostrate, creeping Rugosa hybrid. Splendid for banks and walls. Needs no covering.

NEW DAWN, (Plant Patent No. 1), (Everblooming Dr. W. Van Fleet), \$1.50: Identical in every way with its parent in size and formation of its flowers, color, etc., but blooms continuously throughout the summer and fall.

PAUL'S SCARLET, 50c: Large, bright, scarlet semi-double, in clusters.

PRAIRIE QUEEN, 50c: Large globular bright pink. One of the hardiest.

THOR, (Plant Patent No. 387), \$2.50 each: A Setigera hybrid with large 4 to 5 inch flowers, brilliant scarlet red on long stems. 8 to 10 feet canes.

WHITE DOROTHY PERKINS, 50c: The hardiest pure white climbing rose.

WICHURIANA, Memorial, 50c: Glossy foliage with very fragrant, creamy-white single flowers in clusters, prostrate grower.

ROSE SPECIES AND HARDY ROSES

(Varieties which need no winter protection in Central Iowa)

AGNES, 50c: A tall, pale yellow Rugosa hybrid, blooming very freely in June.

AMELIA GRAVEREAUX, 50c: Double fragrant, deep red.

BLANC DOUBLE DE COUBERT, 50c: A low-growing Rugosa hybrid. Double, snow white flowers, constantly produced.

BELLE POITEVINE, 50c: Large magenta pink flowers in large clusters. Continuous bloomer. Very hardy rugosa.

BLANDA, 40c: 4 to 5 feet. Single pink, splendid shrub, bearing great loads of bright red hips. Almost thornless, red canes.

GROOTENDORST, 50c: Hybrid of Rugosa x Baby Rambler; semi-double, small fringed, bright red roses in clusters produced continuously. Perfectly hardy, good hedge variety. Each flower resembles a carnation.

GROOTENDORST PINK, 50c: A clear pink form of Grootendorst.

HANSA, 50c: Rugosa. Double, violet-red flowers of large size. Freely produced on a strong, typically Rugosa plant. Very hardy and dependable.

HARRISON YELLOW, 50c: The old-fashioned double, clear yellow rose of early spring.

HUGONIS, 50c: A compact upright bush. Single, pale yellow, very early.

RUGOSA, 50c: 5 to 7 feet. Single, large bright red; wrinkled, tough foliage, continuous bloomer, very large crimson hips.

SETIGERA, 50c: The Prairie Rose. Clusters of large single pink flowers, and bright red hips. 6 to 8 feet arching canes.

SWEET BRIAR, 60c: Pink flowers, fragrant foliage. Large bright orange hips carried through the winter. The genuine old Sweet Briar.

OTHER ROSES

Most of these come to us direct from one of the best Oregon growers and receive a minimum of handling between the grower and planter, which is important.

All this group should have winter protection. Bank up with earth 8 inches or more and cover with any available material, preferably something which tends to keep them dry.

Hybrid Teas (marked H. T.) are the most constant bloomers and finest colors, but need best winter protection. They are usually well planted quite close together in narrow beds.

Hybrid Perpetuals (marked H. P.) are hardier and larger growing bushes, but not very continuous bloomers through the summer unless pruned heavily in spring.

Polyanthas, or Baby Ramblers are quite hardy but are better with protection and are the most continuous blooming of all. Floribundas are especially suitable for massing and have considerably larger flowers and bushes than the Polyanthas.

AMERICAN BEAUTY, 50c: H. P. Deep pink, fragrant.

BETTY PRIOR, Floribunda, (Plant Patent No. 340), 85c each, \$3.50 per dozen:
Produces large fragrant clusters continuously throughout the season. Opens lively red turning to shell-pink. Desirable for mass planting. Grows 24 to 30 inches.

BETTY UPRICHARD, 50c: H. T. Semi-double, large, ruffled. Outside of petals brilliant orange-carmine, inside soft salmon. Strong grower.

CALEDONIA, 50c: H. T. Large double white.

CAMEO, Polyantha, 50c: A new and distinct color. Shell pink with salmon suffusion over which lies a glow of gold. Small flowers in large sprays constantly in bloom from June until frost. Grows 12 to 18 inches.

CHARLOTTE ARMSTRONG, H. T., (Plant Patent No. 455), \$1.25 each: Slender blood-red buds opening to spectrum-red or cerise. Ideal for cutting. The "All-America Rose Selection," of 1941.

CHRISTOPHER STONE, 60c: H. T. A sensational new red rose. Large brilliant crimson-scarlet shaded deeper. Has a delicious old rose scent. Very vigorous and free blooming.

CONDESA DE SASTAGO, 50c: H. T. Distinctly two-toned. Coppery pink inside, golden on the reverse side.

CRIMSON GLORY, (Plant Patent No. 105), \$1.00 each, \$10.00 per dozen: H. T. Large urn shaped buds producing perfectly formed flowers of intense vivid crimson, produced continuously.

DAINTY BESS, 50c: H. T. Single, rose colored, red stamens.

DONALD PRIOR, Floribunda, (Plant Patent No. 337), 85c each, \$3.50 per dozen:
The large cup shaped flowers are semi-double, bright scarlet, flushed crimson, fragrant. Free flowering. One of the most striking colors of Floribunda group. Grows 24 to 30 inches.

DUCHESS OF WELLINGTON, 50c: H. T. Fragrant pale buff-yellow. Vigorous and productive.

DUQUESA DE PANARANDA, 60c: H. T. Coppery apricot.

EDITH NELLIE PERKINS, 50c: H. T. Pointed buds, rich orange outside, salmon pink inside. Very fragrant.

ELLEN POULSEN, Floribunda, 50c: Large, semi-double, bright rose pink, tall.

ETOILE DE HOLLANDE, 50c: H. T. Large, brilliant crimson-red. Finest red.

FRAU KARL DRUSCHKI, 50c: H. P. The very purest white, continuous bloomer if pruned severely.

GEN. JACQUEMINOT, 50c: H. P. Scarlet-crimson, early and fragrant.

GEO. ARENDTS, (Pink Druschki), 50c: H. P. Excellent large, fragrant, pink.

GOLDEN DAWN, 50c: H. T. Clear lemon yellow, long pointed buds.

GRUSS AN AACHEN, Floribunda, 50c: Fully double, light rose over-laid with yellow and almost as large as a Tea Rose.

GRUSS AN TEPLITZ, 50c: H. T. Velvety crimson-scarlet, the most continuous bloomer. Hardy and vigorous. Not good for cutting, splendid in gardens.

IDEAL, Polyantha, 50c: Very fine small dark red flowers in large clusters.

IMPERIAL POTENTATE, 50c: H. T. Large, deep rose-pink.

IMPROVED LAFAYETTE, Floribunda, 50c: Medium sized deep glowing red. Produced very profusely but not in large clusters.

JOANNA HILL, 50c: H. T. Large yellow with bronze shadings in center. Fragrant.

KAISERINE AUGUSTE VIKTORIA, 50c: H. T. Creamy-white, very fragrant.

KIRSTEN POULSEN, Floribunda, 50c: Bright scarlet clusters on long stems.

LADY ALICE STANLEY, 50c: H. T. Flesh pink with coral shadings.

MABELLE STERNS, Hybrid Setigera, (Plant Patent No. 397), \$1.50 each: Peach-blossoms, pink flowers in panicles thru the summer and until frost. 2 feet high, forming a mat several feet across.

MAGNA CHARTA, 50c: H. P. Very large, rosy pink, tinted carmine.

MARGARET MCGREDY, 50c: H. T. Brilliant red with golden base.

MCGREDY'S IVORY, 50c: H. T. Very large long pointed buds developing into a large soft creamy-white. Moderately fragrant flowers. Vigorous and healthy.

MCGREDY'S SCARLET, 50c: H. T. Bright velvety scarlet.

MCGREDY'S YELLOW, 60c: H. T. Bright, buttercup-yellow; perfect form; vigorous and healthy.

MME. BUTTERFLY, 50c: H. T. A more brilliant Ophelia, a very continuous bloomer and most satisfactory as a garden rose.

MRS. E. P. THOM, 50c: H. T. Large shapely bright canary-yellow flowers.

MRS. JOHN LAING, 50c: H. P. Very large double soft pink flowers on long stems.

PAUL NEYRON, 50c: H. T. Very largest, clear pink, fragrant, thornless.

PICTURE, 60c: H. T. Well-shaped buds and clear rose-pink flowers. Almost constantly in bloom.

PINK DAWN, 50c: H. T. A beautiful new Hybrid Tea Rose with glorious rose buds opening to lovely pink blooms tinted with orange at the base of the petals. Sweetly fragrant.

PRES. HOOVER, 50c: H. T. A combination of cerise pink, scarlet, and yellow. A most vigorous grower and constant bloomer.

PRINCE CAMILLE DE ROHAN, 50c: H. P. Dark blood red, large, fragrant.

RADIANCE, 50c: H. T. Fine rosy pink, large, stems, very productive, healthy and a most dependable garden variety.

RED RADIANCE, 50c: H. T. A glowing crimson form of Radiance.

REV. F. PAGE ROBERTS, 50c: H. T. Golden yellow stained copper.

SKYROCKET, 60c: A hardy continuous blooming shrub rose. Very large clusters of medium sized red flowers throughout the entire season. Canes 3 to 4 feet.

SMILES, Floribunda, (Plant Patent No. 331), 85c each, \$8.50 per dozen: Semi-double, 3 in., richly fragrant, blooms of splendid salmon pink, produced most continuously on medium tall well branched plants.

SOEUR THERESE, 50c: H. T. Long dark yellow buds, opening very beautiful rich yellow.

THE DOCTOR, 60c: H. T. Long pointed buds open silver pink; intensely fragrant.

TRIOMPHE ORLEANAIS, Floribunda, 50c: Semi-double, open, cherry red blooms in clusters on well branched medium tall plants.

ULRICH BRUNNER, 50c: H. P. Large, fragrant, cherry red, vigorous.

WORLD'S FAIR, Floribunda, (Plant Patent No. 362), \$1.00 each, \$10.00 per dozen: "All American Rose Selections," for Floribundas, 1940. Produces large clusters, velvety blooms of fragrant blackest scarlet with glowing mass of golden stamens. A most continuous bloomer. Grows 18 to 24 inches.

PEONIES

Peony plants should be good for several decades, so it is poor judgment to start with unnamed, poorly rated, or discarded varieties simply because they are cheapest when so many highly rated superior kinds can be had for but a few cents more. Planting too deep, fertilizing too heavily, or cutting the tops too soon after flowering are probable causes of unsatisfactory results with peonies.

Peonies may be planted in any good garden soil, not too shaded, and the buds should not be covered more than two inches. Bone meal may be used about them and some complete commercial fertilizer applied with caution.

A stock of all the more expensive varieties is not kept in storage for late spring planting, so any orders for them which come too late for spring digging will be held until September, which is the next season for planting Peonies.

The figures after the price of each variety is its rating by the American Peony Society. The old rating system is used and on a basis of 10.0 being perfect. The prices are for strong standard divisions of 3-5 eyes or buds. Other sizes furnished on this basis.

ADDIELANCHEA, 75c, 8.8: Creamy-white, base of petals yellow, late fragrant.

ADOLPHE ROUSSEAU, 50c, 8.5: Dark lustrous red shaded maroon with yellow stamens. Tall, early, very large.

ALICE HARDING, \$2.50, 9.5: Delicate flesh pink. Very fine new kind.

ASA GRAY, 50c, 8.1: Mid-season, pale pink with carmine dots, fragrant.

AVALANCHE, 50c, 8.7: Late, very fine blush white. Extremely productive.

BARONESS SCHOEDER, 50c, 9.0: Late, flesh color fading white, fragrant.

CHERRY HILL, 60c, 8.6: Very early, rich dark crimson, yellow stamens.

CHESTINE GOWDY, 60c, 8.4: Large, late, outer petals pink, collar creamy-white, center pink, streaked crimson. Excellent fragrance.

CLAIRE DUBOIS, 50c, 8.7: Tall, late, fine pink with glossy reflex.

CORNELIA SHAYLOR, 75c, 9.1: Tall, late, flesh-white, darker center, fragrant.

COURONNE D' OR, 50c, 8.1: Late, white with yellow stamens.

E. B. BROWNING, 75c, 9.2: Large, very late, white tinged pink at first.

ENCHANTERESSE, 50c, 8.9: Very late, creamy-white. Very large, faintly fragrant.

FELIX CROUSSE, 50c, 8.4: Late mid-season, brilliant crimson.

FESTIVA MAXIMA, 50c, 9.3: Early, pure white, tipped carmine, fairly fragrant.

FRANCES WILLARD, 60c, 9.1: Perfectly formed, very large, white, mild fragrance.

FRANKIE CURTIS, \$2.00, 9.3: Delicate flesh, changing to white.

GEORGIANNA SHAYLOR, 60c, 8.9: Late mid-season, large, light rose pink, fragrant.

GRACE LOOMIS, \$1.50, 9.2: Late, white, faintly tinted lemon, mildly fragrant.

JUDGE BERRY, 60c, 8.6: Early light rose pink, slightly fragrant.

KARL ROSENFIELD, 50c, 8.8: Mid-season, rich blood red, thrifty and productive. One of the best red varieties regardless of price.

KATHERINE HAVEMEYER, \$1.00, 9.0: Mid-season, large, light rose pink, fragrant.

KELWAY GLORIOUS, \$1.00, 9.8: White very early, lasting and fragrant. No kind in the list is more vigorous or more regular in blooming.

KELWAY QUEEN, \$1.00, 8.8: Bright rose pink, late mid-season, rose scented.

LADY ALEXANDRA DUFF, 60c, 9.1: Mid-season, blush pink fading white with yellow stamens, fairly fragrant.

LA FEE, 75c, 9.2: Very largest, loose flowers of various shades of pink, fragrant.

LA LORRAINE, \$1.00, 8.6: Large, mid-season, creamy-white tinted pink.

LA TULIPE, 50c, 7.5: Flesh pink fading white, red markings.

LE CYGNE, \$2.00, 9.9: Early, pure white; has the very highest rating of all. Fragrant.

LILLIAN GUMM, 75c, 8.8: Very large, deep rose pink, very fine fragrance.

LIVINGSTONE, 50c, 8.1: Late deep pink, fine cut flower. Strong, sweet fragrance.

LONFELLOW, 50c, 9.0: The most brilliant red, mid-season.

LOVELINESS, 60c, 8.8: Large, very late, pale flesh pink, mildly fragrant.

LUETTA PFEIFFER, 60c, 8.7: Very pale pink, tall, early fragrant.

MABEL FRANKLIN, 60c, 9.0: Light pink.

MARIE JACQUIN, 50c, 8.3: Semi-double, white with yellow stamens like Water Lilies in clusters, fragrant. Exceptionally fine garden variety.

MARTHA BULLOCH, 60c, 9.1: Tall, very large, rosy pink, rose-like fragrance.

MILTON HILL, 60c, 9.0: Late, light shell pink, faintly fragrant.

MME. DE VERNEVILLE, 50c, 7.9: Mid-season, white, very choice cut flowers.

MME. EMILE GALLE, 50c, 8.5: Late, pink shaded lilac-rose, rose fragrance.

MME. JULES DESSERT, 75c, 9.4: Large, creamy-white shaded buff and salmon.

MONS. JULES ELIE, 50c, 9.2: Early very large glossy pink, extra fine, fragrant.
One of the very best kinds.

MONS. MARTIN CAHUZAC, \$1.00, 8.8: Early, darkest deep maroon.

MT. BLANC, 75c, 8.6: Milk white, early mid-season, very large, fragrant.

MRS. A. M. BRAND, \$1.50, 9.6: Very large, late, clear white, fragrant.

MRS. ED. HARDING, 75c, 9.3: Large, white, early, tall, stiff stems.

MYRTLE GENTRY, \$2.00, 9.1: Rosy white, salmon tinted, fragrant.

NINA SECOR, \$1.00, 9.0: Pure white with yellow glow.

OFFICINALIS RUBRA PLENA, 75c: Double. Very earliest bright crimson.

PHILIPPE RIVOIRE, \$1.25, 9.2: Late, bright crimson, best red, rose scented.

PHYLLIS KELWAY, 75c, 9.0: Semi-double, bright pink, very large, fragrant.

PRES. WILSON, 75c, 9.3: Late, large, soft shell pink, spicy fragrance.

RICHARD CARVEL, 60c, 8.8: Early, very bright crimson, slightly fragrant.

ROSA BONHEUR, 75c, 9.0: Light violet-rose, flecked crimson, rose fragrance.

ROSETTE, 75c, 8.8: Large early mid-season, clear light shell pink.

ROSE SHAYLOR, 75c, 9.1: Very large, double flesh-pink marked crimson, mid-season.

SARAH BERNHARDT, 50c, 9.0: Very large, rose pink, vigorous and productive.

SARAH K. THURLOW, \$1.25, 9.1: Very late, opens delicate pink becoming white.

SHAYLOR'S DREAM, 75c, 8.5: Double, mid-season, pale flesh pink, fragrant.

SOLANGE, 75c, 9.7: Mid-season, white shaded salmon.

THERESE, 75c, 9.8: Mid-season, delicate satiny pink.

TOURANGELLE, 50c, 9.4: Creamy-buff with salmon tints, mildly fragrant.

WALTER FAXSON, 60c, 9.3: Mid-season, distinct bright salmon rose, fragrant.

JAPANESE VARIETIES

FUYAJO, 75c, 9.2: Dark purplish crimson, center dark old rose, tipped pale buff.

KING OF ENGLAND, 75c, 8.6: Large, tall, quite early, rich ruby-red with narrow golden center petals.

MIKADO, 60c, 8.6: Dark crimson with center crimson, tipped gold.

SNOW WHEEL, \$1.00, 8.3: Pure white throughout.

TAMATE-BOKU, \$4.00, 9.4: Lively China-pink, faintly fragrant.

TORPILLEUR, 75c, 8.0: Deep rose-red, center tipped cream, slightly fragrant.

SINGLE VARIETIES

ANOMALE, 60c: Bright red. Very earliest, almost a month earlier than others of the taller peonies.

PRIDE OF LANGPORT, 75c, 8.9: Pale, rose pink, large, mid-season.

IRIS

Bearded Iris may be planted anytime, but preferably not at blooming time, and should be planted shallow, on well-drained limestone soil. Fibrous rooted kinds like moisture and more acid soil, and are better moved in spring or September. A group of one kind or color is better than single plants of many colors.

QUANTITY RATES. Applicable to any one variety; not to assortments.

15c kinds, 30c for 3, \$0.75 for 10 and \$4.00 for 100 fans.

20c kinds, 40c for 3, .85 for 10 and 5.00 for 100 fans.

25c kinds, 50c for 3, 1.00 for 10 and 6.00 for 100 fans.

S. denotes standards, the upright part of the flower; and F., falls.

EARLY BLOOMING DWARF BEARDED IRIS, fine for borders and rockeries, earliest in bloom.

Cyanea, 15c: S., rich blue; F., dark satiny purple, 6 inches high.

Excelsa, 15c: S. and F., deep clear yellow, 8 inches.

Graminea, 20c: Rich red-purple; gold beard.

Marocain, 20c: A rich deep pansy-purple, very fine.

Prairie Gem, 15c: A very fine yellow. 5 inches.

GENERAL LIST OF TALL BEARDED IRIS:

Aphrodite, 15c: Tall, bright lilac-pink, fragrant.

Baldwin, 20c: Large, tall, deep violet self.

Black Wings, 20c: Deep blue-black.

Buto, 20c: Large, deep blue-purple; large; rather short.

Chartier, 15c: Tall, clear white.

Coronation, 15c: Tall, deep yellow self.

Dauntless, 30c: One of the best of the red toned varieties. Medium tall.

Gold Imperial, 15c: Chrome yellow.

Jacqueline Guillot, 15c: Large, lavender-violet.

Juniata, 15c: S., Arching; F., Flaring, clear blue throughout.

King Tut, 20c: Reddish brown,—outstanding.

Lent A. Williamson, 15c: S., lavender-violet; F., royal purple.

Lord of June, 20c: Large lavender blue.

Mary Barnett, 20c: A splendid pale blue.

Midwest, 15c: S. and F., ruffled, dotted, and blushed rose on white ground

Midgard, 20c: Pink and yellow blend, ruffled.

Mme. Chereau, 15c: S. and F., white frilled pale blue, tall and late.

Morning Splendor, 15c: S., rich violet; F., darker. One of the best.

Pallida Dalmatica, 15c: S. and F., light lavender-violet.

Prairie Gold, 15c: Choice, yellow, medium height.

Princess Beatrice, 15c: Light lavender self. Tall.

Ramzes, 30c: Apricot, pink, and blue blended.

Snow White, 20c: White.

True Charm, 15c: White delicately suffused lavender.

Wedgewood, 20c: Blue self, white beard.

Winneshiek, 25c: Dark blue.

MISCELLANEOUS IRIS SPECIES: More permanent, and less susceptible to diseases than the tall bearded Iris. They like a moist soil without lime and with plenty of peat or humus.

Dorothea K. Williamson, 15c: 30 in. Gorgeous, velvety, vivid red-purple.

Mrs. A. W. Tait (Longipetala superba), 20c: 3-4 ft. Long narrow petals, soft porcelain blue. Very tall, stiff, sword-like foliage.

Vesper Iris, I. dichotoma, 20c: 3-4 ft., much branched stems, light lavender flowers for four weeks in August and September. Flowers open about 3:30 each afternoon.

Water Iris, I. pseudacorus, 20c: 2-3 ft. Bright yellow. For waterside.

SIBERIAN IRIS: Should be much more used. Very superior to Bearded Iris as garden plants. Dense clumps of narrow upright foliage remaining bright till fall. Very hardy.

Blue Charm, 25c: Very large blue variety much superior to the old blue kinds. An excellent kind.

Caesar's Brother, 40c: 30 in. A rich black pansy-violet, the darkest of the Siberian Iris.

Emperor, 25c: 3-4 ft. Large, deep violet-blue, broad circular falls. One of the very best of the group.

Snow Queen, 20c: 30 in. Ivory white with yellowish throat. Fine for cutting.

JAPANESE IRIS: June-July. All best protected some through winter and like rich, moist, humus soil.

Mahogany, 30c: Six petals, dark reddish-purple.

Uchiu, 30c: Six petals, caerulean blue, yellow center.

Unnamed Seedlings, 25c: Random colors.

OTHER HARDY PERENNIALS AND ROCK GARDEN PLANTS

The measure given is the average height, and the dates, the blooming periods.

Most perennials can be moved well either fall or spring, and many of them through the summer. Plants one foot or under are usually suitable for some place in the rock garden unless too aggressive. Special cultural requirements are briefly noted.

Prices, unless otherwise given: Field-grown plants 25c each, \$2.00 per ten, \$17.50 per 100. 3 of one kind at ten rates and 25 or more at hundred rates.

ACHILLEA, Milfoil, Yarrow. Thrives in any soil in sun.

—filipendulina, Fern-leaved, 3 to 4 ft. Broad corymbs of bright yellow, June-July. One of the best and hardiest garden plants.

PRICES unless noted: 25c each, \$2.00 per 10, \$17.50 per 100.

ALLIUM—Wild onion. Splendid plants in rockery or border.

—**Chives**, 6 to 8 in. Purplish flower heads in spring, used in seasoning.

—**montanum**, 2 ft. Beautiful globular heads of lavender to violet flowers. July-September.

—**Ruby King**, 1 ft. Erect large heads of deep rose flowers. June. Splendid for cutting and drying.

AMSONIA Salicifolia, Willow-leaved Amsonia, half shrubby, 3 ft. Splendid foliage always bright and clean, soft yellow in fall. Interesting pale blue flowers. June. Permanent and carefree. Splendid among shrubs.

—**tabernaemontana**, 2 to 3 ft. Leaves broader than above. Panicles of pale blue flowers in late May. Worthy of much more use in border and among shrubs.

AQUILEGIA, Columbines. Not particular as to soil, endures some shade. From seed, they vary considerably, so colors can not be guaranteed.

—**Dobbies Hybrids.** A fine strain with a good range of colors.

—**Longissima.** Long spurred flowers of various colors.

—**Long Spurred Hybrids.** Many color combinations and types. May-June.

ASTER—Harrington's Pink, 35c: 3 to 4 ft. A clear soft pink. Much the best of all. Blooms before early hard freezes such as that of September 1942 which spoiled later varieties. Received award of Merit from Massachusetts Horticultural Society. Strong field grown plants of the original variety which was first cataloged and distributed by us. Many inferior seedlings of it are now on the market.

—**Nova Angliae**, 3 to 4 ft. Strong vigorous upright plants with deep violet blue, to purple flowers.

—**Queen Elizabeth**, 3 to 4 ft. Well branched, large white flowers.

—**Queen Mary**, 3 to 4 ft. Dark sky-blue.

ASCLEPIAS tuberosa, Butterfly Flower, 18 in. Umbels of bright orange flowers in July and August.

BAPTISIA australis, False Indigo, 2 to 3 ft. Dark blue, pea-shaped flowers in 6 in. spikes, May-June. Dry soil in full sun.

PRICES unless noted: 25c each, \$2.00 per 10, \$17.50 per 100.

BETONICA grandiflora, Betony, 2 ft. Rugose leaves. Bright rose purple flowers in summer.

BLEEDINGHEART. See *Dicentra*.

BOCCONIA Cordata, Plume Poppy, 6 to 8 ft. Broad sinuate leaves. Creamy-white flowers in plume-like terminal panicles, July-August. Fine background where it can be curbed. Invading.

CAMPANULA, rapunculoides, 1 to 1½ ft. Nodding, purplish-blue. June-September.

CASSIA marilandica, Wild Senna, 3 to 6 ft. Large panicles of yellow pea-shaped flowers with black centers in July. Handsome locust like foliage.

CHRYSANTHEMUMS, Hardy. Obtaining satisfactory kinds is a problem. Most kinds highly recommended elsewhere either lack hardiness most years or freeze before blooming here. All like rich soil, and winter protection.

—**Astrid.** Large single, shell pink with bright yellow center. Claimed to be extremely hardy. Late.

—**Pink Cushion, Amelia**, 1 ft. Also sold as Azaleamum. Broad, rounded cushion growth. 2 in. Bright pink; September till frost.

—**Bronze Cushion, 30c:** A deep bronze cushion turning bronzy-yellow.

—**Clara Curtis, 40c:** Large salmon-pink daisy-like flowers in August-September.

—**Early Bronze. Pompom.** Small bronze flowers, August-September.

CLEMATIS—See also under Vines and Creepers.

—**recta mandschurica, 30c:** 2 ft. Clusters of large, fragrant, white flowers in June-July. Heads of wooly seed till winter, very desirable and superior to the common *C. recta*. Seed heads beautiful when dry.

COREOPSIS grandiflora, 3 ft. Deep yellow, splendid cut flowers. June-October.

DAISY, Elders Improved. Superior to the old Memorial Daisy.

—**Shasta Supreme.** Very large, early Shasta.

DELPHINIUM, Larkspur. All like limestone soil and good drainage.

—**belladonna**, 2 to 4 ft. Light blue, all summer.

PRICES unless noted: 25c each, \$2.00 per 10, \$17.50 per 100.

—**bellamosa**, 2 to 4 ft. Like above but dark blue, all summer.

—**English Hybrids**, 4 ft. or more. All shades, each plant distinct. Plants selected while in bloom will be priced according to size and quality.

DICENTRA eximia, **Plumy or Fern Leaved Bleedingheart**, 30c: 1 ft. Finely cut light green foliage till frost. Compact growing flowers from early spring till frozen. Thrives in sun or shade.

—**spectabilis**, **Bleedingheart**. The old-fashioned Bleedingheart, 30c: 1½-2 ft. Long racemes of graceful heart-shaped, rose-crimson flowers. April-June. It likes humus but will grow almost anywhere, even in shade. Still one of the best old perennials.

DICTAMNUS RUBER, **Gas Plant**, 2½ ft. Rosy purple, veined darker. Strongly aromatic. Likes rich well-drained soil and needs little care. Plant in a permanent place and leave it alone. Each year it will be better. Very drought resisting.

FERN—Ostrich, Onoclea struthiopteris, 2 to 3 ft. Prefers part shade and leaf-mold, but will endure almost any situation. Makes colonies by creeping rootstalks.

FILIPENDULA ulmaria, **European Meadowsweet**, 2 ft. Feathery plumes of creamy-white in June-July.

—**rubra venusta**, 4 ft. Bright carmine-pink plumes July. Likes moist soil.

GYPSOPHILA Bristol Fairy, 50c: Grafted, double variety. 1 year plants. Much superior to seedling plants, blooming continuously.

HELIOPSIS scabra incomparabilis, 30c: One of the best border plants about 3 ft. Three in., double, golden yellow flowers from July to fall.

HEMEROCALLIS, **Yellow Day Lily**. They grow anywhere and are among the very best perennials.

—**D. D. Wyman**, 40c: 2½ ft. July-August, golden-yellow, tawny splashed petals.

—**Dover**, 60c: Early June. Very large deep golden-yellow. 2 ft.

—**Hyperion**, 75c: 3 to 4 ft. July-early August. Very large soft pale yellow over a long season. A very choice kind.

—**gracilis**, 18 in. Grass-like foliage. Clear yellow flowers in early June, and again in the fall if not allowed to make seed.

PRICES unless noted: 25c each, \$2.00 per 10, \$17.50 per 100.

- Lemoni**, 50c: 4 ft. Stiff upright stems with large pale lemon-yellow flowers closing in hot sunshine.
- Kwanso**, 4 to 5 ft. July. Double, golden-bronze.
- Mrs. J. R. Mann**, 50c: 3 to 4 ft. Rich, deep yellow. July.
- Mrs. W. H. Wyman**, 60c: 4 ft. Large, light pale lemon-yellow. August. One of the latest, best and most prolific.
- Queen of May**, 30c: June. One of the very best large clear yellow flowers. Evergreen foliage and needs some protection.
- The Gem**, 50c: 3 ft. Deep orange-yellow. June-July. A very choice kind.
- thunbergi, The Late Lemon Lily**, 2 to 3 ft. July-August. Medium sized fragrant lemon-yellow.

HOSTA, Funkia Plaintain Lily. Thrives almost anywhere.

—**lancifolia**, 2 ft. Lilac flowers in September.

—**subcordata grandiflora**, 40c: 2 ft. Broad glossy light green leaves, spikes of pure white fragrant flowers in August and September. Partial shade. Protect in winter.

LIATRIS pycnostachya, Kansas Gayfeather, 4 ft. Long spikes rich purple. July-August.

—**September Glory**, 30c: A greatly improved variety with large purple flowers all open at once.

LILIUM—Lilies. Mostly require well-drained, deep soil, and like protection from the wind. Depth to plant is noted last.

—**Bulbiferum**, 40c: 2 ft. Bright orange-red and yellow. June. 4 in.

—**Concolor**, 30c: 18 in. Very pretty upright star-shaped deep crimson. Bulbs small; plant 5 in. Endures sun.

—**elegans**, 2 ft. Orange-red. Upright opening. May-June. Easiest to grow; 5 in.

—**henryi**, 40c: 4 to 5 feet. Rich orange-yellow. 10 in.

—**regale, The Regal Lily**, 20c or 25c, according to size. Both are good blooming sizes. Large white trumpets shaded pink. July. One of the best and easiest good lilies to grow. 9 in.

PRICES unless noted: 25c each, \$2.00 per 10, \$17.50 per 100.

- superbum, Turk's-Cap Lily**, 4 to 5 ft. Reddish-orange. July. 5 in. in peaty soil.
- tigrinum, Tiger Lily**, 3 to 4 ft. July-August. Orange spotted black. 9 in.
- umbellatum**, 2 to 2½ ft. Umbellate heads of upright flowers, dark red shaded orange, June. Very easy to grow. 8 in.

LILY OF THE VALLEY. A choice large variety. Clumps 30c.

LYTHRUM roseum superbum, Purple Loosestrife, 3 to 4 ft. Branched spikes of rosy purple. July-August. For moist or wet places. Quite shrubby.

NEPETA mussini, Ground-Ivy, 1 ft. Compact, beautiful foliage, lavender-blue flowers, constantly. A splendid rockery or wall plant.

PHLOX multiflora. A mat of pale lilac, early. Humus soil.

—**subulata atropurpurea**. Purplish-red. The darkest and most popular variety.

—**subulata Autumn Rose**. Deep rose with darker center. Blooms in Spring and September to November.

—**subulata Emerald Cushion**. Deep pink. Very dark green foliage.

—**subulata vivid**. Vivid pink. The best dwarf pink. Slow growing.

PHLOX paniculata, Garden Phlox. All like rich, moist, well-drained soil, and a mulching of well-rotted manure in winter.

—**Brilliant**. Bright brilliant scarlet with darker eye.

—**Daily Sketch**. Very large flowers of light salmon-pink with carmine eye.

—**Enchantress**. Soft salmon-pink with darker eye, very large flowers.

—**Lillian**. A beautiful large pink closely resembling Columbia.

—**Painted Lady**. Soft silvery pink with deeper center.

—**Rokoko**. Very large soft lilac-pink flowers.

—**R. P. Struthers**. Bright cherry-red with darker eye.

—**Rynstroom**. A lively rose-pink like Paul Neyron rose.

—**Special France**. Delicate rose with carmine-rose eye, unusually free blooming.

PRICES unless noted: 25c each, \$2.00 per 10, \$17.50 per 100.

—**Von Lassberg.** Tall, pure white.

—**Wm. Kesselring.** Violet-purple, white radiating from center, very dwarf.

PLATYCODON grandiflora, Balloon Flower, 2 to 3 ft. June-October. Large bell-shaped flowers, either blue or white, inflated balloon like buds.

POPPY—Oriental, Olymphia. Double, free blooming rich scarlet. Earliest.

RANUNCULUS acris, English Buttercup, 1 to 2 ft. Upright, branching sprays small double waxy golden yellow flowers, May-June. Fine for Memorial day.

—**repens**, similar to above, but prostrate, spreading rapidly. Glossy dark green foliage.

RUDEBECKIA—Black-Eyed-Susan, 12 to 16 in. Truly perennial, bright orange-yellow with black centers. July-August.

RUTA PATAVINA, Rue, 1 ft. Blue-green aromatic foliage; small yellow flowers. Light sandy soil. An old-fashioned herb.

SAXIFRAGA crassifolia, 1 ft. Broad green foliage, rosy pink flowers, April-May. Very fine among rocks. Leaves turn red in winter.

SEDUM, Stonecop, Liveforever.

—**kamstchaticum**, 6 in. Bright green foliage, golden-yellow flowers.

—**middendorffianum**. Low, tufted plants, spreading 1 ft. Linear dark green leaves turn red in fall. Yellow flowers. Very choice kind.

—**sexangulare**. Moss-like linear leaves, yellow flowers.

—**spectabile brilliant**, 18 in. Broad flat heads of rosy-crimson flowers. A splendid border plant.

—**spectabile variegata**, 1 ft. Pink flowers, leaves striped yellowish.

—**stoloniferum coccineum**, 6 to 8 in. Rosy-crimson, July-August.

SEMPERVIVUM, House Leek, Hen and Chickens. All excellent in rockeries.

—**blandum**. Large rosettes, reddish colored.

PRICES unless noted: 25c each, \$2.00 per 10, \$17.50 per 100.

—**globiferum.** Small globular rosettes. Young plants roll away and strike root readily.

—**tectorum.** Rosettes 5 to 6 in. in diameter. Flowers pale red. 1 ft.

STATICE latifolia, Sea Lavender, 1 to 2 ft. Broad, thick leaves, upright, finely branched panicles of small blue flowers. August-September. Splendid for cutting and drying. Endures driest weather.

THERMOPSIS carolina, 2 to 3 ft. Bright yellow lupine like flowers in June and July.

TULIPS will be priced at blooming time or later, and in the fall will be available in home grown bulbs.

VERONICA rupestris nana, 1 in. Prostrate. Forms dark green carpet. Gentian blue. April-May.

—**rupestris**, 3 to 4 in. Trailing, bright blue in June. Makes a thick carpet.

—**spicata**, 2 ft. Erect spikes of deep blue in June.

—**virginica, Culvers root**, 3 to 4 ft. Spikes of white flowers. May-June.

VINCA minor, Trailing Myrtle. Evergreen. Lilac-blue. April-May.

—**Bowles' Variety.** Has larger deeper rich blue flowers.

YUCCA filamentosa, Adam's Needle, 4 to 6 ft. Tall pyramidal clusters of large, creamy flowers. June-July. Heavy 3-year plants, 40c.

PRICES unless noted: 25c each, \$2.00 per 10, \$17.50 per 100.

NUT TREES

TRANSPLANTING. Nut Trees are not as difficult to transplant as many believe but do require much more careful handling than fruit trees. The roots will not endure as much exposure and the tops should be cut back heavily. Usually the more the top is reduced the better the growth the first year. Cut ends should be waxed and the stem given a loose wrapping to prevent dessication. Nut trees are hand dug, usually have long, deep roots, and are too heavy and too long to be sent by parcel post. Holes should be dug deep enough to avoid crowding the roots and pulverized moist peat mixed with top soil filled around them. A basin may be left around the tree and filled with peat to facilitate watering and hold the moisture. If peat is not available fill in with mellow top soil and put a mulch of strawy manure about the tree.

The common pests of nut trees are the Walnut Caterpillar and Fall Web-worm. Either may entirely defoliate walnut or other trees in late summer. Spraying in mid-summer with arsenate of lead is an effective control.

BLACK WALNUTS are very heavy feeders and do best in deep alluvial soil. They are generally quite unsatisfactory on poor upland soil. Well established trees may be given heavy applications of barnyard manure or other fertilizer judiciously applied and will yield larger better filled nuts because of it.

Being native, Black Walnuts are hardy and well adapted to Mid-Western planting. Growth starts late in the spring and stops early in the fall so unseasonable cold spells almost never injure them. The English or Persian Walnut differs in this respect and will grow too late in the fall if growing conditions are favorable and can then be severely frozen. None has been found which has really proven dependable here, and if they were, do not have the fine flavor of the Black Walnut and would be superior only in easier cracking. No other nut except the Hickory retains its flavor as well as the Black Walnut after heating, and their use is increasing in baking goods and confectionery. Consumers who have had nuts of the improved varieties appreciate their superiority and insist on having "Those walnuts which crack out in halves and quarters" and willingly pay double the price of common walnuts for them.

The grafted kinds are also superior for landscape planting being more thrifty and having larger, darker, glossy green foliage.

Our Black Walnuts are grown from bench grafts on one year old seedlings made in late winter and started over thermostatically controlled electric heating cable so as to be calloused and ready for field planting in May, thus requiring a minimum of attention during the busy spring season. Grown by this method, the graft union is well under ground and if the top of one is accidentally broken or cut off, it will sprout up from above the union thus saving the variety. Where the union is above ground as it is in trees propagated by the usual method of grafting or budding, the variety would be lost in such a mishap, and only a seedling root remain. Bench grafted trees also are smoother having no scar where the scion or bud was inserted.

Thomas is the best known and succeeds over a wide territory. Within the whole range of the Black Walnut only a few distant sections report another kind preferable to Thomas, and commercial plantings are mostly of it. The tree is hardy, very vigorous, productive, and a very young bearer, switches one year old often bearing the following season. The nuts are large, easily hulled and fairly thin-shelled. The kernels have fine flavor and color, easily crack out in halves and quarters, and the yield is ten pounds or more per bushel. Sizes, 5-6 ft., 4-5 ft., 3-4 ft., 2-3 ft.

Ohio has a large oblong hull which is very difficult to remove otherwise it is one of the best kinds. The nut is long and pointed, with a thin shell, is easy to crack and has splendid quality. Sizes, 5-6 ft., 4-5 ft.

Stabler is a slower growing variety of fair quality and is known chiefly because a considerable part of the long pointed nuts have but a single lobe, cracking out in one piece. Sizes, 5-6 ft., 4-5 ft., 3-4 ft.

Wandra is a vigorous growing kind with somewhat elongated thin-shelled nuts of medium size cracking out a high percentage of kernels of good quality. Sizes, 5-6 ft., 4-5 ft.

A few trees are available of **Cresco** and **Rohwer** at the prices below. Sizes available on application.

PRICES —of Grafted Walnuts.	5-6 ft.	4-5 ft.	3-4 ft.	2-3 ft.
See sizes after each variety.	\$2.50	\$2.00	\$1.75	\$1.50

BUTTERNUT, White Walnut. We have not yet succeeded in growing bench grafts of the superior Butternut varieties so again can only offer seedling trees. Butternuts have a shallower root system than Black Walnuts and transplant easier.

	Size	Each	Per 10
Seedling trees.	2- 3 ft.	\$0.30	\$2.00
	18-24 in.	.25	1.50

HICKORIES, HICANS, AND PECANS

The supply of grafted trees of these very desirable nuts was exhausted in the fall of 1942 and no more can be promised until the war is won and more help is again available. The Hickories have the longest, deepest roots so require much labor for hand digging, as well as much also for grafting in the field and subsequent care during the busiest spring planting season, and help to do this is not available.

The limited supply of helpers which are to be had will be used first to produce as much food as possible from the quick yielding farm crops, then what they can of fruit trees, nut trees, etc., which do not yield food immediately.

A good supply of young stock is approaching grafting size and we hope those which are sufficiently large may be grafted so as to be ready for digging when normal conditions do return again.

THE WINKLER HAZEL makes a splendid ornamental shrub 6 to 7 feet high and produces the largest nuts of the native hazels. They have the splendid

flavor of the wild hazelnuts and in good seasons may be over an inch across. The bushes bear when two or three feet high and a single large bush has produced over six pounds of nuts. In severe climates the staminate catkins may be winter-killed, in which case there would be no nuts produced unless another hazel of some kind which is a good pollinator is nearby. Farther south Winkler is reported as bearing very regularly, and more satisfactorily than Filberts. In fall, Winkler foliage is very attractive with scarlet and bronze tints.

WINKLER PLANTS ARE ALL SOLD UNTIL FALL OF 1943.

TURKISH TREE HAZEL. 30 feet or more. This hazel grows into a beautiful tall pyramidal tree which does not sucker. The corky, light yellowish-gray bark is very attractive, and characteristically furrowed with age. The foliage resembles that of the hazel bushes. The nuts are fair sized and enclosed by bracts having curly lacinated tips. This very attractive tree is fully hardy in central Iowa but it also is extremely rare. 4-5 ft. trees, \$2.00 each.

GRAFTING WAX. Nut Tree Grafting is usually done later than fruit tree grafting and nut tree scions are much slower starting so are often still dormant when some very hot weather comes. The waxes commonly used break up or separate in such weather and the oil or fat they contain penetrates between the scion and stock hindering or preventing a union. After much experimenting the U. S. Department of Agriculture has developed a wax which does not do this and so gives a much higher percentage of successful unions. It is composed only of Rosin, Beeswax, and Kieselguhr and we are pleased to offer it at 50c per pound or \$4.00 per ten pounds. Postage additional. Try this for any grafting and see if it does not greatly increase the success of your work, and especially under unfavorable weather conditions.

THE NORTHERN NUT GROWERS' ASSOCIATION is an organization of progressive people of many different vocations who are interested in the advancement of nut culture. An annual report is published which contains the most up-to-date practical and scientific information published on the subject and is well worth the \$2.00 membership fee. All interested in nut trees should join. New members will receive both the report of the previous and current year. Memberships may be sent to D. C. Snyder, Treasurer, Center Point, Iowa.

ORDER SHEET

SNYDER BROS., INC., Center Point, Iowa

Date....., 1943. Forward by: Frt.... Exp.... Truck.... or Parcel Post....

To About when

P. O. _____ State _____

Street Total of order
R. F. D. or P. O. box.

Shipping point 2% Sales Tax
if not same as P. O.

Amt. enclosed _____

If a variety is exhausted, may we substitute a similar one?

If size ordered is exhausted, may we substitute a smaller one and refund balance?.....

Total Carried Forward
(over)

ORDER SHEET—Continued

TOTAL

Iowa Customers must add 2% Sales Tax

TERMS

PRICES. We hope to maintain these prices thru the spring season but due to prevailing uncertain economic conditions must reserve the right to change them without notice. If material increases are necessary the customer will be notified before booking his order. These prices are for the stock properly packed and delivered to the customer or carrier here or at nearby towns if we are making general deliveries there.

CONDITIONS. All orders are accepted on condition that they shall be void should any injury befall the stock from hail, frost, fire, or other causes beyond our control. Deliveries are subject to delay by bad weather, bad roads, strikes, accidents, embargoes, or any causes beyond our control.

TERMS OF PAYMENT are cash on or before the delivery of the stock, unless previously otherwise agreed upon. Remittances may be by check or any convenient form, payable to Snyder Bros., Inc.

CLAIMS for errors or shortage will be considered if made immediately upon receipt of the stock.

GUARANTEE OF GENUINENESS. While we exercise the utmost diligence to have all of our varieties true to name, and hold ourselves in readiness on proper proof to replace all stock that proves untrue to name, we do not give any warranty, expressed or implied, and in case of any error on our part, it is mutually agreed between the purchaser and ourselves that we shall not at any time be held responsible for an amount greater than was originally paid for said stock.

SHIPPING FACILITIES. Our facilities for shipping by either freight, R. R. Express, or Motor Truck Lines are excellent. We are located adjacent the station grounds of both the C. R. I. & P. and W. C. F. & N. Railways. Nursery stock takes second class express rates, and small, distant orders are best sent this way.

TRUCK SERVICE can be arranged with local truckers at rates comparable to railroad freight rates, for those at a distance who have a truck load of stock and prefer to have it come that way. It is better for the stock to be sent by truck, for then it is handled much less, does not have to be crowded into crates or boxes, and is not subject to delays and transfers enroute. Smaller orders for delivery by truck will have to be held until a load is accumulated for one place, so customers are urged more than ever to come prepared to take their stock back with them in their car or trailer. Experienced help will not be available to assist customers with their planting as heretofore.

